EFFECT OF FAMILY- FOCUSED THERAPY AND SOCIAL COGNITION AND INTERACTION TRAINING ON PATIENTS WITH BIPOLAR AFFECTIVE DISORDER

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Submitted By

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I hereby declare that the dissertation entitled "**EFFECT OF FAMILY- FOCUSED THERAPY AND SOCIAL COGNITION AND INTERACTION TRAINING ON PATIENTS WITH BIPOLAR AFFECTIVE DISORDER'** submitted towards partial fulfillment of the requirements for the award of **M.PHIL in Clinical Psychology** degree to BFUHS is a compilation of original work carried out by me under the supervision of **Palak Upadhyay,** Assistant Professor, Department of Clinical Psychology, **Dr. Bholeshwar Prasad,** Professor & Head, Department of Clinical Psychology, and **Dr. Navkiran Mahajan,** Professor, Department of Psychiatry. No part of this thesis has formed the basis for the award of any degree previously.

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DEDICATED TO

MY GRANDFATHER, Sh. INDERPAL ARORA

TO MY PARENTS

MR. AJAY ARORA

&

MRS. SUSHMA ARORA

MY BROTHER, MR. DHRUV ARORA

Thank you for always believing me, your unwavering support, blessings and encouragement have been cornerstone of my academic journey.

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ABBREVIATIONS

BAD	Bipolar Affective Disorder
BDNF	Brain-Derived Neurotropic Factor
EC	Emotional Control
EE	Emotional Expressivity
EOI	Emotional Over Involvement
ES	Emotional Sensitivity
FEICS	Family Emotional Involvement and Criticism Scale
FFT	Family-Focused Therapy
GABA	Gamma-Amino butyric Acid
HDRS	Hamilton Depression Rating Scale
ICD-10	international Classification of Disorder-10
PC	Perceived Criticism
REM	Rapid Eye Movement
SC	Social Control
SCIT	Social Cognition and Interaction Training
SE	Social Expressivity
SS	Social Sensitivity
SSI	Social Skill Index
YMRS	Young’s Mania Rating Scale

ABSTRACT

Introduction: Bipolar Affective Disorder is characterized by recurrent mood disturbance, residual symptoms between episodes, hospitalizations, disrupted cognitive and social functioning of the individual as well as impacts the emotions of caregivers. Social Cognition and `Interaction Training could address these concerns on social skills deficit and Effect of Family-Focused Therapy on Expressed Emotions of the caregivers of Bipolar Patients.

Aim of Study: 1) To study the effect of SCIT on social skills deficit in Bipolar Patients. 2) To study the effect of Family Focused Therapy on expressed emotions of caregivers of Bipolar Patients 3) To evaluate relationship between Expressed Emotions and Social Skills Deficit in the Bipolar Affective Disorder across different phases.

Materials & Methods: The study will be conducted on Bipolar patients- 20 with Depressive Phase and 20 with Mania Phase presented in Psychiatry OPD & ward. Psychological evaluation will be done using YMRS, HDRS, Social Skill Inventory and Family Emotional Involvement and Criticism Scale. 7 sessions in total will be of SCIT and 6 sessions of family focused therapy, one session per day for 40-60 minutes each will be done. Data was analysed using SPSS 21 version.

Results: SCIT showed positive results on Social Skills deficits across both the phases of BAD. In manic group, it showed positive results on most of domains of social skills. SCIT showed positive results in Emotional Sensitivity in Depressive Group. FFT therapy showed significant impact in addressing Expressed Emotions in both the phases. The Manic and Depressive groups did not differ significantly pre and post SCIT and FFT intervention on Social Skills Deficit and Expressed Emotions.

Conclusion: SCIT and FFT showed promising results in improving social skills deficit and addressing the impact of expressed emotions in patients with Bipolar Affective Disorder.

Keywords: Bipolar Affective Disorder, Expressed Emotions, Social Skills Deficit, Mania and Depression, Mood Disorder.

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KEY TO MASTER CHART

BAD	Bipolar Affective Disorder
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EE	Emotional Expressivity
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PC	Perceived Criticism
SC	Social Control
SE	Social Expressivity
SES	Socio-Economic Status
SS	Social Sensitivity
SSI	Social Skill Index
YMRS	Young's Mania Rating Scale

INTRODUCTION

Bipolar Affective Disorder (BAD) is affiliated with both abiding and persistent impairment with individuals who suffer from this condition.

This enervating state of unabating mental illness is characterized by recurrent mood episodes, with two different phases known as depression or mania[1]. It also lead to disrupted family patterns and social functioning[2]. Individuals with BAD along with social skills impairment may have difficulty in their interpersonal relationships, lower quality of life and social isolation. Family members may have high expressed emotions which are typically correlated with difficulty in family interaction pattern and relapse of symptoms.

BIPOLAR AFFECTIVE DISORDER

Bipolar Affective Disorder (BAD) is one of the most prevalent and serious mental disorders. It is a persistent and incapacitating mental disorder marked by recurring mood episodes, with periods of manic or depressed symptomatology as well as periods of symptom remission. It has been ranked as one of the 20 leading medical causes of disability. According to WHO (2000)[3], Bipolar Affective Disorder has been considered to be one of the most widespread, debilitating and importunate mental illness which is seventh prominent cause of non-lethal burden in the world. According to National Mental Health Survey done in 2015, the lifetime prevalence of bipolar disorder in India is 2.6-7.8%[4]. According to Global Burden Study of Disease done in 2017, the lifetime prevalence of Bipolar Affective Disorder in India is 4.9-9.6%[5]. In a national representative sample, one in every four persons diagnosed with bipolar I disorder reported a suicide attempt[6]. However, certain individuals might begin to exhibit symptoms as children or even later in life. According to research, an early age of onset has been linked to a family history of mental disorders[7]. It has been discovered that early onset, a more severe course of disease, repeated bouts of mania and depression, and treatment resistance are all linked to a family history of bipolar disorder [8].

The disorder's early signs and symptoms might be subtle, making it challenging to diagnose. The median interval between the actual beginning of symptoms and the first appointment is five years, and it might take up to ten years for mood stabilizers to become evident [9]. High relapse rates are reported despite available treatments and about two thirds of the patients do not return to normal functioning.

FREQUENCY OF EPISODES

There is a consensus that the initial episodes of bipolar disorder frequently last significantly longer than the subsequent complete episodes. Patients who first experience symptoms at a young age and have a family history of affective illness report more frequent episodes or ongoing symptoms [10]. Due to the fact that early symptoms frequently go unreported and may thus receive insufficient therapy, the treatment provided during the early episodes might additionally have an effect on how long the episodes last [11]. According to research findings from retrospective life graphs, some patients start cycling annually from their initial experiences [12]. However, it is challenging to assess differences in cycle frequency in a straightforward manner in the modern era with the use of various drugs.

DIAGNOSTIC CRITERIA

According to International Classification of disorders 10 (ICD-10) [13] the criteria for the diagnosis of Bipolar Affective Disorder is as follow:

BAD is characterized by repeated (i.e., at least two) episodes in which the patient's mood and activity levels are significantly disturbed, this disturbance consisting of some occasions of an elevation of mood and increased energy and activity (mania or hypomania), and on others of a lowering of mood and decreased energy and activity (depression).

Manic episodes usually begin abruptly and last for between 2 weeks and 4-5 months (median duration about 4 months). Depressions tend to last longer (median length about 6 months), though rarely for more than a year, except in the elderly. Episodes of both kinds often follow

stressful life events or other mental trauma, but the presence of such stress is not essential for the diagnosis. The first episode may occur at any age from childhood to old age. The frequency of episodes and the pattern of remissions and relapses are both very variable, though remissions tend to get shorter as time goes on and depressions to become commoner and longer lasting after middle age.

HYPOMANIC EPISODE

Several of the features consistent with elevated or changed mood and increased activity, should be present for at least several days on end, to a degree and with persistence greater than described for cyclothymia. Considerable interference with work or social activity is consistent with a diagnosis of hypomania, but if disruption of these is severe or complete, mania should be diagnosed.

MANIC EPISODE

Mood is elevated out of keeping with the individual's circumstances and may vary from carefree joviality to almost uncontrollable excitement. Elation is accompanied by increased energy, resulting in over activity, pressure of speech, and a decreased need for sleep. Normal social inhibitions are lost, attention cannot be sustained, and there is often marked distractibility. Self-esteem is inflated and grandiose or over-optimistic ideas are freely expressed.

Perceptual disorders may occur, such as the appreciation of colors as especially vivid (and usually beautiful), a preoccupation with fine details of surfaces or textures, and subjective hyperacusis. The individual may embark on extravagant and impractical schemes, spend money recklessly, or become aggressive, amorous, or facetious in inappropriate circumstances. In some manic episodes the mood is irritable and suspicious rather than elated. The first attack occurs most commonly between the ages of 15 and 30 years but may occur at any age from late childhood to the seventh or eighth decade.

The episode should last for at least 1 week and should be severe enough to disrupt ordinary work and social activities more or less completely. The mood change should be accompanied by increased energy and several of the symptoms referred to above (particularly pressure of speech, decreased need for sleep, grandiosity, and excessive optimism).

DEPRESSIVE EPISODE

In typical depressive episodes of all three varieties described below (mild, moderate, and severe, the individual usually suffers from depressed mood, loss of interest and enjoyment, and reduced energy leading to increased fatigability and diminished activity. Marked tiredness after only slight effort is common. Other common symptoms are:

(a) reduced concentration and attention;
(b) reduced self-esteem and self-confidence;
(c) ideas of guilt and unworthiness (even in a mild type of episode);
(d) Bleak and pessimistic views of the future;
(e) ideas or acts of self-harm or suicide;
(f) disturbed sleep
(g) diminished appetite.

The lowered mood varies little from day to day, and is often unresponsive to circumstances, yet may show a characteristic diurnal variation as the day goes on. As with manic episodes, the clinical presentation shows marked individual variations, and atypical presentations are particularly common in adolescence. For depressive episodes of all three grades of severity, a duration of at least 2 weeks is usually required for diagnosis, but shorter periods may be reasonable if symptoms are unusually severe and of rapid onset.

Some of the above symptoms may be marked and develop characteristic features that are widely regarded as having special clinical significance. The most typical examples of these "somatic" symptoms are:

- Loss of interest or pleasure in activities that are normally enjoyable.
- Lack of emotional reactivity to normally pleasurable surroundings and events
- Waking in the morning 2 hours or more before the usual time
- Depression worse in the morning
- Objective evidence of definite psychomotor retardation or agitation (remarked on or reported by other people)
- Marked loss of appetite; weight loss (often defined as 5% or more of body weight in the past month)
- Marked loss of libido.

MILD DEPRESSIVE EPISODE

Depressed mood, loss of interest and enjoyment, and increased fatigability are usually regarded as the most typical symptoms of depression, and at least two of these, plus at least two of the other symptoms described should usually be present for a definite diagnosis. None of the symptoms should be present to an intense degree. Minimum duration of the whole episode is about 2 weeks. An individual with a mild depressive episode is usually distressed by the symptoms and has some difficulty in continuing with ordinary work and social activities but will probably not cease to function completely.

MODERATE DEPRESSIVE EPISODE

At least two of the three most typical symptoms noted for mild depressive episode should be present, plus at least three (and preferably four) of the other symptoms. Several symptoms are likely to be present to a marked degree, but this is not essential if a particularly wide variety of symptoms is present overall. Minimum duration of the whole episode is about 2 weeks. An individual with a moderately

severe depressive episode will usually have considerable difficulty in continuing with social, work or domestic activities.

SEVERE DEPRESSIVE EPISODE

In a severe depressive episode, the sufferer usually shows considerable distress or agitation, unless retardation is a marked feature. Loss of self-esteem or feelings of uselessness or guilt are likely to be prominent, and suicide is a distinct danger in particularly severe cases. It is presumed here that the somatic syndrome will almost always be present in a severe depressive episode. All three of the typical symptoms noted for mild and moderate depressive episodes should be present, plus at least four other symptoms, some of which should be of severe intensity. An overall grading of severe episode may still be justified in such instances. The depressive episode should usually last at least 2 weeks, but if the symptoms are particularly severe and of very rapid onset, it may be justified to make this diagnosis after less than 2 weeks.

ETIOLOGY OF BIPOLAR DISORDER

Genetic studies

Estimates of the genetic contribution of BAD range as high as 85%. The concordance rates in twin studies are 57% for identical twins and 14% for fraternal twins[14]. Despite a considerable genetic effect, the relevant genetic element has not yet been found. The probability of developing the condition in first-degree relatives hovers around 10%, with lifetime risk of 1%[15]. Although relatively rare, adoption studies support the importance of heredity in bipolar illness(16). Multiple vulnerable genes interact with the environment and predispose to comparable clinical symptoms, resulting in complex genetic heterogeneity, which makes the identification procedure challenging[17] . The two chromosomes having the most compelling evidence for an association to bipolar illness are 18g and 22g[18].

Neurotrophins, Neurotransmitters, and Endocrinology

In the development, structural, and functional remodelling of the central nervous system, neurotrophins are crucial. One member of the neurotrophin family is BDNF. Depression illness severity has been linked to decreased blood levels of BDNF[19]. The amine hypothesis generated scientific curiosity in the 1960s about the role of monoaminergic neurotransmitters as a basic pathogenetic element in affective disorders[20]. On the basis of this hypothesis, depression was caused by a reduction of noradrenaline and serotonin whereas increase of the biogenic amines was postulated as the cause of mania. According to a steadily increasing amount of research, symptoms of mood disorders are caused by an interaction between dysregulation of the dopamine and serotonin systems and deficiencies in other neurotransmitter systems, such as GABA and substance P[21]. The hypothalamic-pituitary-thyroid axis has been the subject of research into the importance of the neuroendocrinological system in individuals with affective disorders. Findings imply that bipolar disorder, particularly in fast cycling, has an etiologic as well as illness-supporting aspect that is subclinical aberrations in the thyroid metabolic rate. Thyroid hormones appear to hasten the effects of traditional medicine[22]. High-dosed thyroid hormone administration along with classical medication initially has a positive effect on course of affective disorders and on the therapy-resistant acute depressive symptoms.

Neuroanatomy

Bipolar Affective Disorder patients were assessed using imaging techniques including computer tomography (CT) and magnetic resonance imaging (MRI) revealed a variety of anatomical alterations to the brain. In addition to abnormalities in the frontal lobe, neuropath logical analyses of post-mortem BAD patients show that the corticolimbic and corticosteroid control circuits are dysfunctional[23].

The main anatomical changes in BAD patients uncovered thus far are[24]

- An enlargement of the third ventricle
- Increased sub-cortical hyper-intensities
- Volume reduction in Frontal/prefrontal region seems to appear more
- Reduction in dorsolateral-prefrontal activity is the most conspicuous finding in bipolar depressive patients
- Increased amygdala activity

Circadian Rhythm:

Circadian rhythm irregularities may be a factor in the manic and depressive episodes that BD patients experience. Data point to aberrant melatonin hormone release patterns in BD patients, which maintains the sleep/wake cycle. According to certain research, melatonin release increases during mania and decreases during depression [25]. Depressive patients in addition to diurnal affect ariation, experience early awakenings, shortened REM sleep latency, delayed attainment of minimal body temperature and changes in endocrinological secretion profiles. Irregular circadian rhythms are also thought to contribute to sleep disturbance in approximately 70% BD patients which continues to persist even in the remitted phase[26]. Increased sleep can result in clinical improvement in 5-25% of the patients in hypomanic and manic. Whereas sleep deprivation can result in 50% clinical improvement in depressive patients [27].

The recurrent mood disturbances, chronic onset and lasting residual symptoms between episodes, multiple hospitalizations and disrupted cognitive processing interfere with the functioning of the individual. The functional impairment covers multiple domains, including functioning at work, interpersonal and social functioning. It has been found that BAD Patients tend to have Social Rhythm Disruption which is marked by disturbed social functioning[28].

PSYCHOLOGICAL THEORIES

Psychodynamic factors

The psychodynamic school of thought has major contributions by Sigmund Freud. In addition to depression being result of disturbances in infant- mother relationship during the oral phase, Freud emphasized it to be caused by real or imagined object loss and use of introjection as defence mechanism[29]. Among other psychodynamic theorist, Edward Bibring considered depression as a phenomenon being caused by discrepancy between extraordinarily high ideals set by a person and his inability to meet those Goals[30]. Edith Jacobson considered depression as being similar to a powerless, helpless child victimized by a tormenting parent. Fairbairn (1940,1941)[31] viewed depression as a reaction which occurs when the circumstances disturb the object relations of individuals of the depressive type. As a result hate and aggression are turned inward against the self.

Manic states according to Karl Abraham, reflect an inability to tolerate a developmental tragedy or they may also result from a tyrannical superego, which produces intolerable self-criticism that is then replaced by euphoric self-satisfaction[32]. According to Bertram Lewin mania is the result of the patient's ego being overwhelmed by pleasurable impulses, such as sex, or by feared impulses, such as aggression. Klein also viewed mania as a defensive reaction to depression, using manic defences such as omnipotence, in which the person develops delusions of grandeur[33].

Behavioural theories

According to the behavioural scientist, depression is the result of a person's interaction with his environment. Fester (1973)[34] defined depression as a reduction in the frequency of positive reinforcement of the individual behaviours. In operant or Skinnerian terms, the depressed person is on a prolonged extinction schedule i.e. the learned behaviour decreases in frequency due to lack of positive reinforcement [35].

Cognitive theories

The theory of learned helplessness was proposed by Seligman in 1974. In this theory, when animals or humans discover they have little or no control over aversive events, they may feel helpless, and as a result, they become unmotivated to respond to the failure, leading them to exhibit passive behaviour[36]. The cognitive version of learned helplessness later developed by Abramson, Seligman, and Teasdale (1978) took into account attributional processes (i.e., how people explain why an event occurs[37].

Cognitive models of mania are similar to the hopelessness model of depression. This model states that a vulnerability can promote dysfunctional schemes and facilitate cognitive errors (for example, overgeneralizations and stable attributions in the face of anticipated or current positive experiences), which can lead to a more positive mood or an irritable mood. Thus, self-esteem grows, more activities are planned, warnings from others are ignored, and taking medication is questioned. This may create a vicious cycle leading to an escalation of manic symptoms[38].

Mansell and Padley, attempt to explain mood swings by examining how individuals interpret changes in their internal states for example, increased energy and waking up too early. Functional emotional regulation can be disturbed by attributing a high personal significance to internal change (e.g., anxiety that fatigue signals depression, morning awakening indicates creative energy) and attempting to control these states. According to the authors, these counterproductive control agendas that increase the risk of clinically relevant depression or manic symptoms are referred to as "ascent behaviour" and "descent behaviour." The former leads to an increase in activating while the latter is responsible for a decrease in the current state of arousal[39].

COURSES OF BIPOLAR DISORDER

Recurrence risk

In case of the affective disorders, there is a lifelong risk of the return of the affective symptoms. Most of patients have symptomatic recovery after the initial manic episode, within a few days of hospitalizations. However, complete recovery takes time and the patient may have impairment lasting many weeks. Recurrence rate is slightly higher for Bipolar disorder II patients as compared to the type 1 patients[40].

Social Skills

Social skills are considered as being essential criteria for human beings to live harmoniously in their social surroundings. Since they are social creatures that are influenced by and have an impact on their social surroundings through others' behaviour. According to Perez et al.[41] social skills are culturally normative or socially sanctioned interpersonal behaviours that accurately communicate the emotions and needs of the individual in order to facilitate the achievement of interpersonal goals. For everyday existence, social skills are fundamental. Individuals with good social abilities are able to establish relationships, interact with, and relate to others in an assortment of settings. Lack of social skills may result in isolation, loneliness, and discontentment [42]. According to Liberman, et al. (1989)[43] individuals demonstrate social skills in a wide variety of relational settings, which involves the use of proper verbal and non-verbal reactions. People with social proficiency are aware of their surroundings and how to utilize the necessary set of abilities. Social skills are an array of behaviours that assist individuals to express their needs and feelings clearly to others and advance their goals. Our society's social norms serve as a framework for social skills. They educate us about the attitudes and behaviours that the society views as normal, acceptable, and expected. Social skills have a significant role in helping an individual establish and maintain good relationships with others, obeying social norms, fulfilling roles and undertaking responsibility and enjoying one's rights.

Flowers (2008) stated that social skills encourage positive interactions with others. They help an individual become aware of their own feelings and emotions as well as of others[44].

The individual's behaviour must adhere to societal standards that the entire society has agreed upon in order for them to be acceptable. This calls for the capacity to recognize and interpret fine clues from the environment and the people. The person's interactions with others must be in line with their desired aims in order for them to be effective[45].

For the successful achievement of the goals of interaction complex coordination of different mental and physical abilities is required in a specific interpersonal situation. Social skills are pertinent for maintaining social, psychological, and occupational well-being[46]. Any deficit or disruption in the process may affect the outcome of "social skill" which may lead to an individual experience anxiety, frustration or even isolation. Evidence suggests that people with poor social skills tend to be less popular among their peers than those having better social skills[47]. In the Occupational setup, persons with social skills deficits are usually associated with low academic achievement[48]. Agaliotis and Kalyva (2008) [49] describe social skills deficits as being caused by either due to deficit in the acquisition process or due to performance deficit. Some individuals have difficulty in interacting with their environment acquisition deficiency. This indicates that the deficits exist because of the void of a particular social skill meaning that the individual does not possess the action in his or her repertoire of learned behaviour. On the other hand, an individual who was able to previously perform an acquired skill set but has difficulty in doing so in the present time may be experiencing performance deficit.

Psychiatric patients often present with deficits in social functioning which may be attributed to the deficits in the performance rather than acquisition deficit. Individuals with depression often experience marked reduction in speech and other social behaviours resulting in their

experiencing less social reinforcement from the environment. Lack of reinforcement for their behaviour would subsequently increase the social anxiety and consequently worsening the affective symptoms[50]. Even when in remission, patients with bipolar disorder can present social skills deficits. Deficits in these abilities are typically associated with difficulties and conflicts in interpersonal relationships, lower quality of life, and social isolation.

Recent evidence [51] suggests that part of the psychosocial impairment experienced by patients in Bipolar Affective Disorder is related to poor social skills. Even during pharmacological treatment patients with bipolar disorder can have social skills deficit. Deficits in these abilities are typically associated with difficulties and conflicts in interpersonal relationships, lower quality of life, and decreased social expressivity. Sergin, 2000[46] showed that, in addition to deficits in social functioning, imbalances in social skills are significant indicators of clinical distress in individuals with mood disorder leading to depressive symptoms vulnerability. The training of social skills is important considering their effect on the quality of life of the individuals with mood disorder[52].

Expressed Emotions

Expressed Emotions (EE) levels in bipolar patients' caregivers are reliable indicators of recurrence of the episode. George Brown Explained 5 components of Expressed emotions which include critical comments, hostility, emotional over involvement, warmth and positive remarks[53]. The quantification of critical comments and hostility is greatly reliant on the way in which the respondent uses their tone of voice to convey their feelings (anger, rejection, irritability, ignorance, blaming, negligence, etc), while the judgment of over involvement include reported behaviour such as caregivers blaming themselves, sacrificing things, being overprotective, excessively being concerned and neglecting personal needs of self (i.e., caregiver's). Role of caregivers can be very demanding and distressing especially when

they have not received enough information, support and training in management for which family focused interventions are crucial[54].

A growing literature suggests that family stress plays an important role in the course of bipolar disorder (BD). A common index of family stress is expressed emotion (EE), a measure of criticism, hostility, and/ or emotional over involvement in care giving relatives (i.e., parents, spouse, and siblings) of a concurrently ill psychiatric patient. Several studies [55] demonstrate that high EE in relatives is prospectively associated with risk of mood relapse among adults with BD. Although fewer studies have examined youth with BD, low levels of maternal warmth is associated with more recurrences and shorter recovery periods in preadolescent and adolescent manic patients followed for up to 8 years[56]. High parental EE is also associated with enhanced effects of family therapy in adolescents with bipolar spectrum disorders[57]. Thus, EE is prognostic ally important for the early course and treatment of BD.

Understanding the origins of high- or low-EE attitudes in parents may clarify the role of environmental factors in the course of mood disorders and elucidate targets for intervention or prevention. Several perspectives on the origins of EE have been proposed. Some studies suggest that high EE attitudes in parents develop as a reaction to patient characteristics. A few studies have reported cross-sectional relations between parental EE and the severity of mood symptoms in youth, including depressive symptoms [58] externalizing symptoms, and suicidal ideation[59]. However, no single patient variable has consistently explained the relation between EE and relapse across disorders, suggesting patient factors may be limited in their ability to explain the origins of EE attitudes [60].

High EE relatives tend to be less tolerant of culturally aberrant or atypical behaviors than low EE relatives, and endorse a greater sense of agency regarding outcomes in their own lives compared to low EE parents [61]. High-EE relatives also tend to believe that their ill relative

possesses more control over his or her own behaviors than do low-EE relatives. Attribution biases such as these have been reported among high EE relatives of individuals with schizophrenia, depression and adult BD [62]. Thus, there is evidence that the origins of EE attitudes partially reside in the relative's personality or belief systems.

In addition to concurrent and lifetime levels of psychopathology, a family history of affective disorder has long been recognized as a risk factor for emotional disturbance. Parents of youth with BAD who have more familial loading for affective illness (i.e., a diathesis) may be more likely to be high in EE than parents with less familial loading. No study has tested this hypothesis, although one study examined the family psychiatric histories of parents of young adults with schizophrenia [63]. Thus, regardless of parents' own psychiatric status, it is possible that family history of affective illness is an important component of EE among parents of youth with BD, either independently or in conjunction with parents' individual emotional symptoms.

Social Cognition and Interaction Training (SCIT)

Social Cognition and Interaction Training (SCIT)[64] can be defined as a "psychological intervention based on Social psychology addressing two types of social cognitive dysfunctions as deficits referring to lack of skill or ability and biases refers to abnormality how a person uses his ability." (David L. Roberts's et. al, 2003)[65]. SCIT was originally developed as an intervention for individuals who are at least 18 years of age, suffering from a psychotic illness, and who have interpersonal difficulties as a result of their illness.

SCIT targets to strike a balance between improving social cognitive accuracy and improving bipolar patient's understanding of social thinking as a tool to manage their social lives. It approach to helping patients generate alternatives to distorted social judgments has moved increasingly away from the goal of helping patients correct distortions and more toward the goal of appreciating how various judgments have different social and emotional consequences.

It includes training sessions focusing on emotional perception, distinguishing facts from guesses, generating alternatives, avoiding jumping to conclusions, which are designed to increase flexibility in attribution style and improve meta-cognition. It is theorized to improve through rehearsal based “bottom-up” learning and acquisition of social cognitive strategies that are deployed by patients in social situations. As seen in studies social functioning is one of their most unmet treatment needs in bipolar patients, SCIT targets on it.

Family Focused Therapy (FFT)

Family-focused therapy (FFT) is an evidence-based intervention for adults and children with Bipolar Affective Disorder (BAD) and their caregivers, usually given in conjunction with pharmacotherapy after an illness episode developed in 1980’s given by DAVID MIKLOWITZ (2008**)**[66]. The treatment consists of conjoint sessions of psycho education regarding bipolar illness, communication enhancement training, and problem-solving skills training. It focuses on Expressed emotions of the caregivers as with frequent relapses and chronic course of illness, the emotional turmoil takes place in them.

The psycho education consists of didactically oriented sessions with patients and caregivers where they are explained the episodes of “mania” and “depression”. They are encouraged to recollect the memories of recent episodes regarding the symptoms, stressors, timeline, first symptoms that began and how they worsened over time. The relapse prevention plan is made on the basis of this. Communication-enhancement training is likely to introduce early in session to improve relationship through interrupting negative patterns, increasing active listening and statements of empathy and rebalancing criticism and praise. The problem solving involves identifying specific family conflicts, generating solutions, evaluating advantages and disadvantages, choosing solutions that further helps in creating implementation plan for better management of bipolar patient.

AIMS AND OBJECTIVES

1. To study the effect of Social Cognition and Interaction Training (SCIT) on social skills deficit in Bipolar Patients (currently in manic phase)
2. To study the effect of Family Focused Therapy (FFT) on expressed emotions of caregivers of Bipolar Patients **(**currently in manic phase)
3. To study the effect of Social Cognition and Interaction Training (SCIT) on social skills deficit in Bipolar Patients (currently in depressive phase)
4. To study the effect of Family Focused Therapy (FFT) on expressed emotions of caregivers of Bipolar Patients **(**currently in depressive phase)
5. To evaluate relationship between Expressed Emotions and Social Skills Deficit in the Bipolar Affective Disorder across different phases.

REVIEW OF LITERATURE

Bipolar Affective Disorder (BAD) is characterized as chronic and unabating mental illness with recurrent mood episodes, with two different phases known as depression or mania. The intensity and duration of episodes, signs and symptoms, as well as outcomes vary substantially amongst individuals. Both manic and depressed phases are frequently accompanied with major behavioural changes that impede social and occupational performance, which leads to severe psychological and social impairment.

SOCIAL SKILLS

A group of behaviours connected to interpersonal skills, interpersonal competence, and communication competence are often referred to as social skills. Even during pharmacological treatment patients with bipolar disorder can have social skills deficits[46]. Deficits in these abilities are typically associated with difficulties and conflicts in interpersonal relationships, lower quality of life, and decreased social expressivity. Sergin, 2000[46] showed that, in addition to deficits in social functioning, imbalances in social skills are significant indicators of clinical distress in individuals with mood disorder leading to depressive symptoms vulnerability.

Bipolar disorder patients' knowledge concerning and performance in social skills were investigated by Goldstein et al. in 2006–2009[67]. The Matson Evaluation of Social Skill with Youngsters (MESSY) self-and parent-report version was used to measure social skills. The evaluation was conducted when there were minimal indications of mood disorders. The information regarding pertinent social skills was assessed by the interpersonal negotiation strategy interview. Results revealed that individuals with bipolar illness performed significantly worse on social skills tasks than people in the Healthy group. Social skills competence, however, was present in both groups.

Perez et al. (2007)[68] carried out a research to assess the aberrations in social skills in people with mood disorder. For the purpose of assessment, the Social Skills Inventory (SSI) and the Symptom Checklist-90-Revised (SCL-90-R) were employed. According to the findings, imbalances in social skills are another important symptom of clinical distress in people with mood disorders, in addition to deficits in social functioning.

The social dysfunction in 25 euthymic bipolar patients was investigated by Rocca et al. (2008)[51]. Social skills were assessed using the Social Skills Inventory (SSI), while social situations and judgement were assessed using the Comprehension and Picture Arrangement subtest of the Wechsler Adult Intelligence Scale (WAIS). The results showed impaired capacity to cope with adverse situations. On SSI, lower IHS scores were found on conversational skills/social self-confidence and social openness to new people/ situations domains in BD group.

Depp et al. 2010[69] conducted a cross-sectional research on 164 BD patients for searching at their social skills and social functioning. Utilizing the Social Skills Performance Assessment (SSPA) and Specific Level of Functioning (SLOF), respectively, social competence and social functioning were assessed. In comparison to the healthy controls, the results showed that one-third of the BD group had poor social skills. Additionally, 64% of the individuals showed impairment in at least one SLOF domain, indicating social deficit.

Research on 77 BD patients was done by Lahera et al. in 2012[70] to look at the factors that influence social functioning in people with bipolar illness. The patients' present mood state and social adjustment were evaluated using the Internal State Scale (SS) and the Social Adjustment Scale (SAS), respectively. The results show that there is relatively significant impairment in functioning in the BD group, particularly in the leisure and domestic domains. Additionally, only thirty percent of the population participated in social activities.

In a 2018 study, Fernandes et al [71] investigated the relationship between social skill deficiency and a history of mood disorders in the family. There were 37 patients with BD in the sample. The sample's social skills were assessed using the Social Skills Inventory (SSI). In comparison to the healthy controls, sores on the SSI were considerably lower in both groups (with/without a family history of mood illness). In the conversational skills and social performance categories of the SSI, the group of BD patients with a family history of mood illness scored significantly worse (p=0.019) verbal fluency issues were also present in this group.

Miller et. Al 2021[72] collected data from 106 bipolar patients, 106 schizophrenia patients, and 378 healthy controls were combined from 4 different investigations. Social Skills Performance Assessment and other performance-based and clinician-rated metrics were used to evaluate every participant. Without knowing the participant's diagnoses, a single expert evaluated the SSPA exchanges for competency and appropriateness. Participants with schizophrenia and bipolar illness scored lower than healthy controls on each SSPA test. Even though the measures assessing competence did not significantly correlate with appropriateness, items evaluating appropriateness and social competence in communication were intercorrelated across scenarios. Better cognitive and functional performance as well as residential and financial independence was connected with items measuring social competence but not social appropriateness.

Individuals with Bipolar disorder with impaired social cognition and social skills may get involved in stressful social events more often due to their inability to read what is happening, to weigh the risks involved in a social situation, or to take the right decision deriving from it. Hence, this enhanced likelihood for negative life events would trigger many episodes of the illness and, finally, worsen the course of the disorder. This would deteriorate the functional outcome of the patient. From a psychological treatment perspective, timely assessment would help in

early implementation of psycho educational programs and rehabilitation.

EXPRESSED EMOTIONS

Expressed Emotions (EE) level in Bipolar patient's carers is reliable indicator of recurrence of the episode. George Brown Explained 5 components of Expressed emotions which include critical comments, hostility, emotional over involvement, warmth and positive remarks [53]. According to Saleem et al. 1998 [73], High EE relatives were more verbally and non-verbally negative than low EE relative in their problem solving discussions after the episodes of Bipolar Affective Disorder that lead to sooner relapses.

Yan et.al 2004, conducted a longitudinal study [74] with 47 bipolar patients, however the expressed emotion (EE) construct has been shown to predict clinical outcomes in schizophrenia and depression. Participants completed perceived criticism and negative assessments of collaterals, and a close caregiver of the patient did the Five Minute Speech Sample (FMSS) to evaluate EE. At 3-month intervals, interviews were used to evaluate the clinical results and chronic interpersonal stress. High EE indicated recurrence of depression but not manic symptoms.

As author Cuellar et. al 2009 studied[75] Individuals with bipolar illness reflecting having difficulty regulating their emotions in reaction to criticism. The study determined participants with bipolar illness had more affectively deregulated responses to a confederate's criticism than did control participants. Although there was evidence that those with bipolar illness recovered just as rapidly as controls, there was a tendency for them to react to criticism more adversely. Exploratory studies revealed that increased response to criticism among bipolar disorder sufferers was predicted by female gender, the impression of the criticism as being more negative, being handicapped, and having less good relationships.

Study conducted [76] by Parija et. al 2018 where sociodemographic information (e.g., age, gender, place of residence) was gathered from the outpatient psychiatry department of the Institute of Mental Health and Hospital in Agra, followed by burden assessment schedules, family emotional involvement and criticism scales, positive and negative syndrome scales, Young mania rating scales, and Hamilton depression rating scales (HDRS) from patients with schizophrenia and BPAD. Significantly higher total burden ($P = 0.01$) with mean value of 82.8 ($SD = 8.8$) in caregivers of patients with schizophrenia compared to BPAD with mean value of 76.7 ($SD = 12.3$) was noted. In individuals with BPAD compared to those with schizophrenia, emotional over-involvement was considerably higher ($P = 0.0007$). Age of care givers, education, and the burden of care are positively correlated in both groups according to Spearman correlation (P 0.05 in both groups). The presence of a sizable burden of care and expressed emotion point to the need for psychosocial support to the family members for mitigating the burden and reducing the expressed emotion, which in turn could reduce the rates of relapse and help the carers cope and manage the ill family member effectively.

High levels of expressed emotions (EE) have been connected to relapse risk in families because they are a reflection of how much criticism and/or over-involvement there is as studied by Lex et. al 2019 [77]. The Family Attitude Scale and the Perceived Criticism Measure were administered to patients with remitted BD and their family members. Several metrics, including Structured Clinical Interview for DSM disorder I and II, were used to evaluate patient characteristics. Family Attitude Scale and Perceived Criticism Measure shared 25% of the variance for patients and 14% for relatives, indicating a conceptual commonality. In BD, several patient traits and perceived criticism showed high levels of relapse and recurrence.

Sharma et. al 2021[78] evaluated EE and potential abuse by the carers, 100 patients with BD underwent assessments on the Perceived Criticism Measure (PCM), Family Emotional Involvement and Criticism

Scale (FEICS), Brief Dyadic Scale for Expressed Emotions (BDSEE), and Vulnerability for Abuse Screening Scale (VASS). According to the results of the FEICS, greater sickness length (Pearson's correlation coefficient: 0.335; p =.001) and longer treatment duration (Pearson's correlation coefficient: 0.317; p =.001) were linked to considerably reduced perceived criticism. Higher carer use of coping strategies like coercion, avoidance, and resignation was linked to higher patient perception of EE, whereas higher carer use of coping strategies like information seeking, communication, and social involvement was linked to lower patient perception of EE. The study revealed that increased carer load, maltreatment, and maladaptive coping have a substantial influence on the EE.

SOCIAL COGNITION AND INTERACTION TRAINING (SCIT)

Social Cognition and Interaction Training (SCIT) can be defined as a "psychological intervention based on Social psychology addressing two types of social cognitive dysfunctions as deficits referring to lack of skill or ability and biases refers to abnormality how a person uses his ability." (David L. Roberts's et. al, 2003)[65].

As studied by David L. Penn et. al 2007, (79) over a two-year period two groups of inpatients have completed the SCIT program: seven individuals at Dorothea Dix Hospital in Raleigh, North Carolina, and ten individuals at the Oklahoma Forensic Centre in Tulsa, Oklahoma, who were the first cohort from a larger treatment study. A majority of the individuals had a diagnosis of schizophrenia (12 clients, or 71%), were male (12 clients, or 71%), and were Caucasian (13 clients, or 76%). Results showed that SCIT was associated with improved emotion perception (as measured by the Face Emotion Identification Task), improved theory of mind (as measured by the Hinting Task), and a reduced tendency to attribute hostile intent to others (as measured by the Ambiguous Intentions Hostility Questionnaire), with effect sizes being in the medium-large range.

SCIT was originally developed as an intervention for individuals who are at least 18 years of age, suffering from a psychotic illness, and who have interpersonal difficulties as a result of their illness. Social cognition contributes to a person's ability to comprehend and respond appropriately to the thoughts and feelings of others (Macqueen et. Al 2012)[80].

Lahera et. Al 2013 (64)conducted a study on 37 outpatients with DSM-IV-TR diagnosis of bipolar and schizoaffective disorders patients were randomly assigned to treatment as usual (TAU)+SCIT (*n*=21) or TAU (*n*=16). Independent, blind evaluators assessed subjects before and after the intervention on Face Emotion Identification Task (FEIT), Face Emotion Discrimination (FEDT), Emotion Recognition (ER40), Theory of Mind (Hinting Task) and Hostility Bias (AIHQ). Results: Analysis of covariance revealed significant group effects for emotion perception, theory of mind, and depressive symptoms. The SCIT group showed a small within-group decrease on the AIHQ Blame subscale, a moderate decrease in AIHQ Hostility Bias, a small increase in scores on the Hinting Task, a moderate increase on the ER40, and large increases on the FEDT and FEIT. Seventeen of 21 patients completed therapy (80.9%), defined as attending more than half of the sessions and at least two sessions in each phase. Average number of sessions completed by the entire sample was 12.4 (SD 4.1) and by the completer sample was 14 (SD 2.6), from a total of 18 sessions that showed significant improvement.

Zhang et al. 2019, studied [81] Seventy-four BD patients who were randomly assigned to the SCIT and psycho education (Control) groups. All subjects participated in interventions weekly for 8 weeks. Furthermore, the participants were administered the Young Mania Rating Scale (YMRS), the 17-item Hamilton Depression Rating Scale (HDRS-17), the Function Assessment Short Test (FAST) and neurocognitive measures at baseline and after eight weeks. There were no differences in demographics, the HDRS-17, YRMS, and FAST scores or neurocognitive measures between the groups at baseline

(p>0.05). The repeated-measures analysis revealed that SCIT resulted in greater improvement in the HDRS, YMRS, and FAST scores (including six domains) (p<0.01) and two neurocognitive measures (p<0.05) compared to psycho education.

According to preliminary study, conducted by Zhu et. al 2019[82] which investigated the efficacy of social cognition and interaction training (SCIT) for patients with major depression. Thirty patients with first-episode of major depression who received the SCIT plus the treatment-as-usual (i.e., SCIT + TAU group) were compared with twenty-nine patients who only received treatment-as-usual (i.e., TAU group). Patients received SCIT showed a significantly greater improvement on emotion perception, theory of mind, and attribution styles from baseline to follow-up assessments, with a significant reduction of severity of depressive symptoms, compared to those in TAU group. The preliminary findings indicate that SCIT is a feasible and promising method to improve social cognition for patients with major depression.

SCIT was beneficial in enhancing Hostility and Theory of Mind, while emotion mimicking training was employed to increase emotion perception[83]. Consequently, SCIT interventions with individuals with bipolar disorder might benefit from tasks involving comprehension of more complex social situations and implicit measures of attribution style, with less emphasis on tasks such as straightforward facial expression recognition which engage lower-order cognitive processes. An alternative interpretation of these results is that SCIT may improve functional outcomes related to social skills (as typically measured in role play tasks) rather than global functioning, as measured.

FAMILY FOCUSED THERAPY (FFT)

Family-focused therapy (FFT) is an evidence-based intervention for adults and children with Bipolar Affective Disorder (BAD) and their caregivers, usually given in conjunction with pharmacotherapy after an illness episode developed in 1980's given by DAVID MIKLOWITZ (2008)[66]. The treatment consists of conjoint sessions of psycho

education regarding bipolar illness, communication enhancement training, and problem-solving skills training. It focuses on Expressed emotions of the caregivers which with frequent relapses and chronic course of illness, the emotional turmoil takes place in them.

Bipolar disorder patients whose families were given Psycho educational Intervention showed low levels of expressed emotions that led to fewer hospitalizations [57]. In two groups, family-focused therapy (FFT) or integrated family and individual treatment (IFIT) studied by Kim et. al 2004, (84) for bipolar patients, and crisis management (CM), a less intensive intervention suggested to mimic community care, for bipolar patients. Patients with bipolar disorder (N=125) over the course of the 2-year follow-up period, high EE relatives did report greater levels of depression, independent of the nature of their therapy. Critical remarks and emotional over involvement, two EE aspects, were examined. It was shown that the frequency of critical comments was a strong predictor of emotional over involvement. Critical remarks and emotional over involvement were examined as EE dimensions, and it was shown that a higher frequency of critical comments predicted higher levels of mania and depression at follow-up. Additionally, patients in CM had a greater correlation between EE criticism and degrees of manic symptoms than patients receiving family therapy.

According to Malkowitz 2008,[66]. Mood disorder symptoms and their related functional impairments are hypothesized to conjoint, interconnected influences of genetic, biological, and psychological vulnerabilities, family distress, and life stress at different points of development.

Family-focused treatment (FFT) given in conjunction with pharmacotherapy appears to enhance the course of bipolar disorder in adults as studied by Sachs et. al 2008[85]. In two groups, carers of bipolar patients' expressed emotion (EE) levels were consistent predictors of relapse, as a predictor of symptomatic outcome: Bipolar patients who receive family-focused psycho educational treatment

(FFT) or integrated family and individual treatment (IFIT), as well as bipolar patients who receive crisis management, have fewer relapses and less severe symptoms[54].

According to Miklowitz et. al 2009, [86] Family interventions have been found to be effective in paediatric bipolar disorder (BD). The study examined the moderating effects of parental expressed emotion (EE) on the 2-year symptomatic outcomes of adolescent BD patients assigned to family-focused therapy for adolescents (FFT-A) or a brief psycho educational treatment (enhanced care [EC]). A referred sample of 58 adolescents (mean age 14.5 ± 1.6 years, range 13-17 years) with BD I, II, or not otherwise specified was evaluated on Levels of EE (criticism, hostility, or emotional over involvement) in parents which was assessed through structured interviews. Adolescents and parents in FFT-A underwent 21 sessions in 9 months of psycho education, communication training, and problem-solving skills training, whereas adolescents and parents in EC underwent 3 psycho education sessions. Parents rated high in EE described their families as lower in cohesion and adaptability than parents rated low in EE. Adolescents in high-EE families showed greater reductions in depressive and manic symptoms in FFT-A than in EC. Differential effects of FFT-A were not found among adolescents in low-EE families. The results could not be attributed to differences in medication regimens.

Perlick et al. 2010, [87] researched on the primary family caregivers of 46 patients with bipolar I (n = 40) or II (n = 6) disorder, diagnosed by the Structured Clinical Interview for DSM-IV Axis I Disorders, were assigned randomly to receive either: (i) a 12–15-session family-focused, cognitive-behavioural intervention designed to provide the caregiver with skills for managing the relative's illness, attaining self-care goals, and reducing strain, depression, and health risk behaviour [Family-Focused Treatment-Health Promoting Intervention (FFT-HPI)]; or (ii) an 8- to 12-session health education (HE) intervention delivered via videotapes. They were assessed pre-

and post-treatment on levels of depression and mania and caregivers on levels of burden, health behaviour, and coping. Greater reductions in depressive symptoms among patients were also observed in the FFT-HPI group. Reduction in patients' depression was partially mediated by reductions in caregivers' depression levels. Decreases in caregivers' depression were partially mediated by reductions in caregivers' levels of avoidance coping.

A study found that when patients with high EE family members received social skills training, medical treatment, and family psychoeducation, the relapse rate of Schizophrenic patients was reduced [88]. SCIT was beneficial in enhancing Hostility and Theory of Mind, while emotion mimicking training was employed to increase emotion perception [83].

A quasi-experimental study conducted[89] in Zahedan Psychiatric Hospital (Zahedan, Iran), Sixty patients with BD-I, hospitalized as well as one of their primary caregivers, were selected purposefully based on the inclusion criteria and randomly assigned to three groups. A total of 56 individuals completed all the study questionnaires until the follow-up. The SCIT group (consisting of only patients) and the FFT group (consisting of patients with a primary caregiver) each participated in 15 sessions of group interventions. The present results showed that the SCIT and FFT could equally improve relapse prevention and promote social functioning and its components, except for the component of interpersonal relationships, where SCIT was more effective than FFT in the post-test (β=3, *P*=0.034) and follow-up (β=5.043, *P*=0.001). SCIT was more effective than FFT regarding the component of interpersonal relationships in the post-test ($\beta = 3$, $P = 0.034$) and follow-up ($\beta = 5.043$, $P = 0.001$), and there was a difference of three points between the SCIT and FFT groups in the post-test and 5.043 points in the follow-up regarding the interpersonal relationships of BPs. The SCIT and FFT methods exhibited the same effectiveness in reducing relapse prevention in BPs in the post-test and follow-up stages.

Together, these findings suggest that impairment in social cognition and social skills may contribute to the alternations in functioning, particularly interpersonal and social functioning, which are experienced by people with BAD that need intervention. In addition, several cases reports have successful demonstrated Social Cognition and interaction Training on social skills deficits in Bipolar Patients and Family Focused although research in social skills training and family expressed emotions in caregivers of patients with mood disorders has been ongoing since the past decade, there is still much to explore. Most of these researches are been conducted in western countries. Therefore, there is research gap in the studies on relationship between social skills and expressed emotions amongst eastern cultures. The differences in family dynamics and social structure across cultures may have a significant impact on the relationships and measures of expressed emotions and social skills deficits in bipolar disorder. As India has collectivistic culture the impact of expressed emotions and skills will be different to individualistic culture. There are some shared family systems that might contribute to high EE among family members of Bipolar Patients. Thus, this study aims on psychosocial interventions by working on social skills deficits in BAD patients and expressed emotions in the caregivers of the bipolar patients (depressive phase and manic phase) in India.

MATERIALS AND METHODS

SOURCE OF DATA

Study was conducted on 40 Bipolar Affective Disorder patients (20 with mania episode and 20 with depression episode), admitted in psychiatry ward and/or visiting psychiatry OPD at Dayanand Medical College and Hospital.

SAMPLE COLLECTION

The study included 40 patients diagnosed with Bipolar affective disorder (20 in manic phase and 20 with depressive phase) admitted in Psychiatric ward and/or visiting Psychiatry OPD at Dayanand Medical College and Hospital.

RESEARCH DESIGN

Pre-test and post-test intervention design was used for the current study. There were two groups of participants. Both groups were administered a pre-test, received treatment intervention and administered a post test at the end of the intervention.

SAMPLING TYPE

Purposive sampling was used to form sample for data collection. 40 patients who were diagnosed with bipolar affective disorder and who meet the inclusion criteria were selected for the study.

INCLUSION CRITERIA (Manic phase)

- Diagnosis Of Bipolar Disorder according to ICD-10
- Age group between 18 to 55 years of either gender
- Scores on YMRS > 12
- Patients willing to give informed consent.

EXCLUSION CRITERIA (Manic phase)

- ❖ Any other psychiatric illness co-morbidity
- ❖ History of intellectual disability
- ❖ Major neurological disorder/ communication disorder
- ❖ History of substance use disorder

INCLUSION CRITERIA (Depressive phase)

- ❖ Diagnosis of Bipolar Disorder according to ICD 10
- ❖ Age group between 18 to 55 years of either gender
- ❖ Scores on HDRS >7
- ❖ Patients willing to give informed consent.

EXCLUSION CRITERIA (Depressive phase)

- ❖ Any other psychiatric illness co-morbidity
- ❖ History of intellectual disability
- ❖ Major neurological disorder/ communication disorder
- ❖ History of substance use disorder

METHODOLOGY

The study was conducted on 40 patients between the age of 18 to 55 years, diagnosed with Bipolar Affective Disorder as per the criteria of ICD-10 (20 with mania phase and 20 depressive phase) admitted in psychiatry ward and or visiting De-addiction OPD at Dayanand Medical College, Ludhiana. All patients were informed of the study's aims and objectives, as well as the fact that their participation was entirely voluntary. Informed consent was taken from all the participants. They were informed that they had option to withdraw from the study at any moment. No one was compelled or forced to take part in the study. They were informed that their identities would not be revealed,

confidentiality was discussed. They were informed of their rights to ask questions at any point during research. They were also informed of their right to obtain briefing on the study's findings if they so requested. Socio-demographic Performa was filled containing the basic information about the patient. The subjects were evaluated on Hamilton Depression Rating Scale (HDRS) for severity of depressive symptoms, Young Mania Rating Scale (YMRS) for assessing severity of manic symptoms, social skills deficits using Social Skills Inventory (SSI) and expressed emotions using Family emotional involvement and criticism scale (FEICS) prior to the intervention. They were evaluated for social skills deficit using Social Skills Inventory prior to Social Cognition and Interaction Training. Family Emotional Involvement and criticism scale were assessed for expressed emotions before intervention (FFT). The framework of therapy sessions were as follow given in table. The baseline assessments were re-evaluated after the intervention.

Social cognition and interaction training- David l. Roberts (2003)	Family focused therapy – David Miklowitz (2008)
Session1- baseline assessments	Session1- baseline assessments
Session 2- psycho-education	Session2-psychoeducation
Session 3- addressing attribution styles	Session 3- communicati**on** enhancement training
Session 4 – modifying emotional perception	Session 4- addressing expressed emotions
Session5- improving interaction patterns	Session5- enhancing problem solving skills
Session 6- social cognition training	Session 6- post intervention assessments
Session7- post intervention assessments	

DESCRIPTION OF THE TOOLS

1. **Socio demographic Performa** includes the name of the patient, age, gender, MRD number, marital status, educational qualification, occupation, background, contact number, family type, education and occupation of the head of the family, family income, socio economic status, diagnosis, phase of diagnosis, pharmacological treatment, scores on Young mania rating scale, Hamilton depression rating scale, Social skills inventory and Family emotional involvement and criticism scale. Socio economic status was calculated using the updated modified Kuppuswamy Socio-economic status scale.

2. **Young Mania Rating Scale (YMRS)** [27]. Young RC, Ziegler VE 1978): The YMRS is an 11- item, clinician-rated measure of current severity of manic symptoms. It consists of 11 items namely: elevated mood increased motor activity, sexual interest, sleep, irritability, speech, language-thought disorder, content disruptive-aggressive behaviour, appearance and insight. Out of 11 items, four items (irritability, speech, thought content and disruptive/ aggressive behaviour) are graded on a 0 to 8 scale, while the remaining seven items are graded 0 to 4 scale. The YMRS total score ranges from 0 to 60 where higher scores indicate more severe mania, thus, a negative change (or decrease) from baseline indicates a reduction (or improvement) in manic symptoms. Total score ≤12 indicates remission (13-19=minimal symptoms; 20-25=mild mania, 26-37=moderate mania, 38-60=severe mania). The reliability of the scale is 0.84.

3. **Hamilton Depression Rating Scale (HDRS)** [28]. (Max Hamilton, 1960): The HDRS is the most widely used clinician-administered depression assessment scale. Since its inception, the scale has undergone numerous revisions and has been translated into different language including French, Italian, Turkish and so on. It yields a severity score from 0 to 63 on 17 items. The scale consist

of 17 items arranged in the following order: depressed mood, feelings of guilt, suicidal ideation, initial insomnia, middle insomnia, late insomnia, work and interest, psychomotor retardation, psychomotor agitation, psychic anxiety, somatic anxiety, gastrointestinal symptoms, general somatic symptoms, sexual symptoms, hypochondriasis, loss of weight and Insight. Eight items are scored on a 5-point scale, ranging from 0 = not present to 4 = severe. Nine items are scored from 0–2. Scores of 0–7 are considered as being normal, 8–16 suggest mild depression, 17–23 moderate depression and scores over 24 are indicative of severe depression. Test- Retest reliability for the Hamilton depression scale ranged from 0.81 to 0.98.

Nine items (1,2,3,7,8,9,10,11,15) are scored on five-point scale, ranging from 0= not present to 4= severe. Seven items (4, 5, 6, 12, 13, 14, and 17) are scored from 0-2 and item (16) is scored from 0-3. The scale yields a severity score from 0 to 52 on 17 items.

4. **Social Skills Inventory (SSI)** [29] (Ronald Riggio, 2003): It is a 90-item scale which assesses 6 basic social skills that underlie social competence. It evaluates verbal (social) and non-verbal (emotional) communication skills and identifies strengths and weaknesses. It consists of 6 subscales which measure two dimensions- emotional (nonverbal) and social (verbal). The scales are as follow

    I. Emotional Expressivity (EE) refers to ability of individual to express their emotional states non verbally.

    II. Emotional Sensitivity (ES) is the ability to receive and interpret non-verbal cures of other accurately.

    III. Emotional Control (EC) is the capacity to control and regulate ones emotional states.

    IV. Social Expressivity (SE) is the capacity of to initiate and guide conversations in any social situation.

V. Social Sensitivity (SS) is the ability of an individual to accurately assess and interpret the verbal communication of other.

VI. Social Control (SC) is the ability of an individual to act in different social situations.

90 items of the inventory are grouped into six scales. Each item is a statement depicting attitude and behaviour. For each item, the subject is required to choose one option that is most suited for them. The items are scored on 5- point scale where 1= not at all like me; 2= a little like me ; 3= like me ; 4= very much like me; 5= exactly like me. Scores for each scale is calculated individually and range from 15 to 75. Overall SSI score indicates the global level of social skills. Generally, the higher the individual's score, the higher the individual's level of social skill development. Cronbach's alpha coefficients for the SSI scales range from .65 to .88 (M = .73) for the adult sample.

5. **Family emotional involvement and criticism scale (FEICS)** [30] (Shields, 1992): It is a 14-item scale which assesses two dimensions of EE: Emotional Over involvement (EOI) and perceived criticism (PC) in the family. On 14-item scale, the PC subscale should clearly indicate negative attitudes and EOI scale clearly reveal high levels of emotional involvement. The 14 items are organized such that PC is assessed by even- numbered items and EOI is measured by odd-numbered items. A 5-point Likert-type scale includes response options of almost never, once in a while, some, often, almost always. On this scale, high scores indicate greater levels of PC and EOI.

INTERVENTION

SOCIAL COGNITION AND INTERACTION TRAINING (SCIT)

Social cognition and interaction training created by David L. Roberts has been defined as a “psychological intervention based on Social psychology addressing two types of social cognitive dysfunctions as deficits referring to lack of skill or ability and biases refers to abnormality how a person uses his ability.” (David L. Roberts et. al, 2003)[11]. SCIT was originally developed as an intervention for individuals who are at least 18 years of age, suffering from a psychotic illness, and who have interpersonal difficulties as a result of their illness.

SCIT targets to strike a balance between improving social cognitive accuracy and improving bipolar patient’s understanding of social thinking as a tool to manage their social lives. Its approach to helping patients generate alternatives to distorted social judgments has moved increasingly away from the goal of helping patients correct distortions and more toward the goal of appreciating how various judgments have different social and emotional consequences.

It includes training sessions focusing on emotional perception, distinguishing facts from guesses, generating alternatives, avoiding jumping to conclusions, which are designed to increase flexibility in attribution style and improve metacognition. It is theorized to improve through rehearsal based “bottom-up” learning and acquisition of social cognitive strategies that are deployed by patients in social situations. As seen in studies social functioning is one of the most unmet treatment needs in bipolar patients thereby, SCIT targets on it.

FAMILY FOCUSED THERAPY (FFT)

Family-focused therapy (FFT) is an evidence-based intervention for adults and children with Bipolar Affective Disorder (BAD) and their caregivers, usually given in conjunction with pharmacotherapy after an illness episode developed in 1980’s given by DAVID MIKLOWITZ

(2008). The treatment consists of conjoint sessions of psychoeducation regarding bipolar illness, communication enhancement training, and problem-solving skills training. It focuses on Expressed emotions of the caregivers which with frequent relapses and chronic course of illness, the emotional turmoil takes place in them.

The psycho education consists of didactically oriented sessions with patients and caregivers where they are explained the episodes of “mania” and “depression”. They are encouraged to recollect the memories of recent episodes regarding the symptoms, stressors, timeline, first symptoms that began and how they worsened over time. The relapse prevention plan is made on the basis of this. Communication-enhancement training is likely to introduce early in session to improve relationship through interrupting negative patterns, increasing active listening and statements of empathy and rebalancing criticism and praise. The problem solving involves identifying specific family conflicts, generating solutions, evaluating advantages and disadvantages, choosing solutions that further helps in creating implementation plan for better management of bipolar patient.

INTERVENTION PROCEDURE

In the current study, the researcher conducted seven social cognition and interaction training sessions based on the mentioned processes regarding social functioning in order to help the participants build better social skills. Six sessions of family focused therapy was given to patient and chief caregiver to address the expressed emotions using aforementioned process to improve interaction within the family and hope for the future thereby reducing chances of relapse of mood symptoms. Each session involved use of relaxation exercises along with effective problem solving skill to the participants. Seven social cognition and interaction training and six family focused therapy (each lasting about an hour), with each session focusing on core components. The session plan was adopted from protocol given by David L. Roberts for social cognition and interaction training for Bipolar

patients and David Miklowitz for family focused therapy for Bipolar patients. Few modifications and simplifications were made accordingly to accommodate Indian population and the requirements of the study. Core concepts discussed during each session were rediscussed and strengthened throughout subsequent SCIT and FFT sessions.

SESSION PLAN

SESSION 1

- Participants were explained the aims and objectives of the study
- Informed consent was taken.
- Participants were informed the voluntary nature of the study and right to withdraw from the study at any given point of time. They were told about the future implications of the study and their right to ask for results of the study. Participants were also informed regarding active nature of the intervention to be used in the study.
- Researcher focused on building rapport with the participants.
- Socio-demographic Performa was filled.
- Detailed history of the participants regarding mood symptoms, first appearance, frequency, past episodes, treatment history, family history etc was taken.
- They were further evaluated on young mania rating scale or Hamilton depression rating scale according to current phase of the illness, social skill inventory for assessing social skills deficit and family emotional involvement and criticism scale was administered for assessing expressed emotions.
- Relaxation practiced was given to the patient as well as caregiver. They were instructed to lie down comfortably on bed and put their hands on side. This was followed by taking slow, deep breaths. They were instructed to notice their belly move

out when they breathed in and belly move in when they exhale the air. Attention was given the breathing pattern.

SESSION 2

- Relaxation exercise was practiced.
- The researcher introduced the basics of Social cognition and interaction training and Family focused therapy in simple terms in order to explain how it would help them to prevent relapse and better management of symptoms. The importance of practice skills was explained throughout the intervention.
- Potential positive reinforcers to encourage the participants to attend the session were explored. The researcher's one to one presence, encouragement, empathy and praise proved to be considerable reinforcement for the attendees. Caution was taken that the researcher does not reinforce maladaptive behaviour.
- Participants were psycho-educated about the illness. Psycho education was done asking the participants to recollect the events in current episode when they started noticing change in the behaviour and mood of the subject. The "mania" and "depression" nature of illness was explained by throwing light on the symptoms and events experienced in current episode. The early signs of the symptom logy were elaborated and encouraged to bring in awareness using concrete personal examples.

Homework

Participants were asked to list other overt and covert behaviour that they might have missed throughout the session and reflect on them.

SESSION 3

- Relaxation exercise was practiced.
- Previous session was overviewed and summarised. Any reflection that the participant had regarding the previous session was discussed.
- The session focused on **Attribution Styles (**internal, external, specific, pessimistic, optimistic) used by the participant. Subject was asked to read out a story and reflect up on what would be the outcome for the story. What did these strategies help the participant to avoid and why and its consequences of jumping to conclusions were discussed. The particular pattern tends to eliminate discomfort, escapism, negative thoughts, self-image and other psychological experiences. This pattern of jumping to conclusion instead alleviates the cycle of mood symptoms. The attribution styles were worked on reflecting on external perspective which brings about psychological flexibility in the patient.
- The family focused session highlighted **the Communication pattern** between the patient and the family and how to enhance the same. The possible triggering factors like passive aggression, negative remarks, criticism, and hostility towards patient and over compensation by overindulgence were addressed. The caregiver was explained the nature of illness and the role of responsibility that leads to negative pattern for which active listening and empathetic statements were suggested.
- The participants were thanked for their participation and sincere disclosure of the personal information.

Homework

The participants were asked to note other situations of frequently used attribution style and assess their workability to be flexible in their approach. The caregiver was asked to reflect on situations of expressed emotions.

SESSION 4

- Relaxation exercise was practiced.
- Previous session was overviewed and summarised. Any reflection that the participant had regarding the previous session was discussed.
- Emotional Perception: focus was explained to discern between rigid mental set and their thoughts/feelings. Here the participant was taught to cognitively defuse with one's thought and conventional set, view the thought objectively. The set of different pictures showing emotions on face of the individual was shown and participant was asked to express what emotion each face reflects. The labelling thoughts and feelings were addressed by explaining the difference between fact and guessing on basis of conventional mental set.

Expressed emotions

Caregiver were explained the need for balance between control and warmth. The role of critical remarks and praise was explained in light of personal information. Overindulging like not letting patient do basic household chores because he is ill. Critical remarks like you're failure; you're a curse to us. Reformulation of these thoughts like my son has Bipolar Disorder I am having thought that he is curse to me, I am being too critical which is not healthy for us.

- The participants were thanked for their participation and sincere disclosure of personal information.

Homework

Participants were asked to identify the mental programming that they have struggled with and practice above taught verbal convention to reformulate them.

SESSION 5

- Relaxation exercise was practiced.
- Previous session was overviewed and summarised. Any reflection that the participant had regarding the previous session was discussed.
- The **Interaction pattern** of the participant was discussed. Accepting one's responsibility for an action instead of blaming one's self was focused on to move towards committed behaviour changes without any sense of guilt that might push one into self-defeating cycle. The patient was asked to sit In front of empty chair and role play as interacting with caregiver. The exercise was done to develop and understand the perspective others.
- The **Problem solving skills** of the caregiver towards everyday hassles were addressed. The specific family conflict was discussed and changing the focus from problem-oriented thinking to solution-focused thinking was explained. The holistic way to approach the solutions was addressed. The introducing of advantages and disadvantages of choices made that helps with reach adaptive solution was discussed.
- The participants were thanked for their participation and sincere disclosure of personal information.
- **Homework**

  The participant was asked to interact with family members and feedback of which should be noted. The caregiver was asked to continue with all practices taught throughout the five sessions.

SESSION 6

- Relaxation exercise was practiced.
- Previous session was overviewed and summarised. Any reflection that the participant had regarding the previous session was discussed.
- **Social Cognition-** focus was brought on generating alternatives regarding the distorted social judgement reflected in previous sessions and history of illness. The social and emotional consequences that distorted ways of thinking had produced on individual were brought into light. Restructuring of those thoughts to adaptive ways of thinking was done.
- The participant was re-evaluated on Family Emotional involvement and criticism scale.
- The participants were thanked for their participation and sincere disclosure of personal information.

Homework

Participants were asked to daily continue with all practices taught throughout the six sessions.

SESSION 7

- Relaxation exercise was practiced.
- Previous session was overviewed and summarised. Any reflection that the participant had regarding the previous session was discussed.
- Post the discussion; the participations were revaluated on the Vaseline assessments for social skills, manic or depressive symptoms.
- The participants were thanked for their active participation in the research. Any doubts that they may have had through the study

were cleared. They were informed about their right to obtain results of the study.

STATISTICAL ANALYSIS

Data will be described in terms of range; mean ±standard deviation (± SD), frequencies (number of cases) and relative frequencies (percentages) as appropriate. To determine whether the data is normally distributed, a Kolmogorov-Smirnov test was used. Comparison of quantitative variables between the study groups was done using Student t-test and Mann Whitney U test for independent samples for parametric and non-parametric data respectively. For comparing categorical data, Chi square ($\chi 2$) test was performed and fisher exact test was used when the expected frequency is less than 5. A probability value (p value) less than 0.05 will be considered statistically significant. All statistical calculations was done using (Statistical Package for the Social Science) SPSS 21version (SPSS Inc., Chicago, IL, USA) statistical program for Microsoft Windows.

OBSERVATIONS AND RESULTS

TABLE 1 shows the mean age of Manic and Depressive groups.

	MANIC PHASE		DEPRESSIVE PHASE		t	p-value
	Mean	SD	Mean	SD		
AGE	34.70	9.52	34.70	7.99	0.000	NS 1.000

(NS: NOT SIGNIFICANT)

FIGURE 1 show the mean age of Manic and Depressive groups.

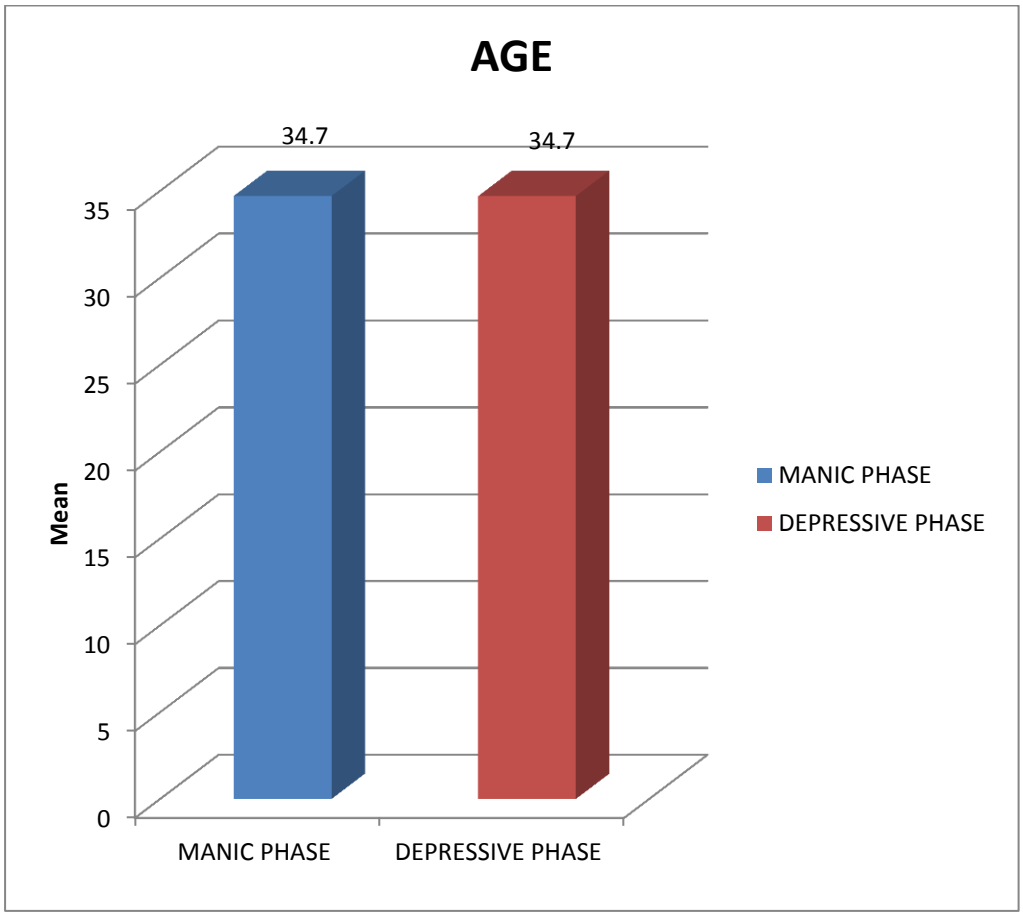


TABLE 2 shows the gender-wise distribution of the cases between Manic and Depressive groups.

		MANIC PHASE		DEPRESSIVE PHASE		Total	Chi-square value	p-value
		No. of cases	%age	No. of cases	%age			
SEX	FEMALE	5	25.0%	6	30.0%	11	0.125	NS 0.723
	MALE	15	75.0%	14	70.0%	29		
Total		20	100.0%	20	100.0%	40		

(NS: NOT SIGNIFICANT)

FIGURE 2 shows the gender-wise distribution of the cases between Manic and Depressive groups.

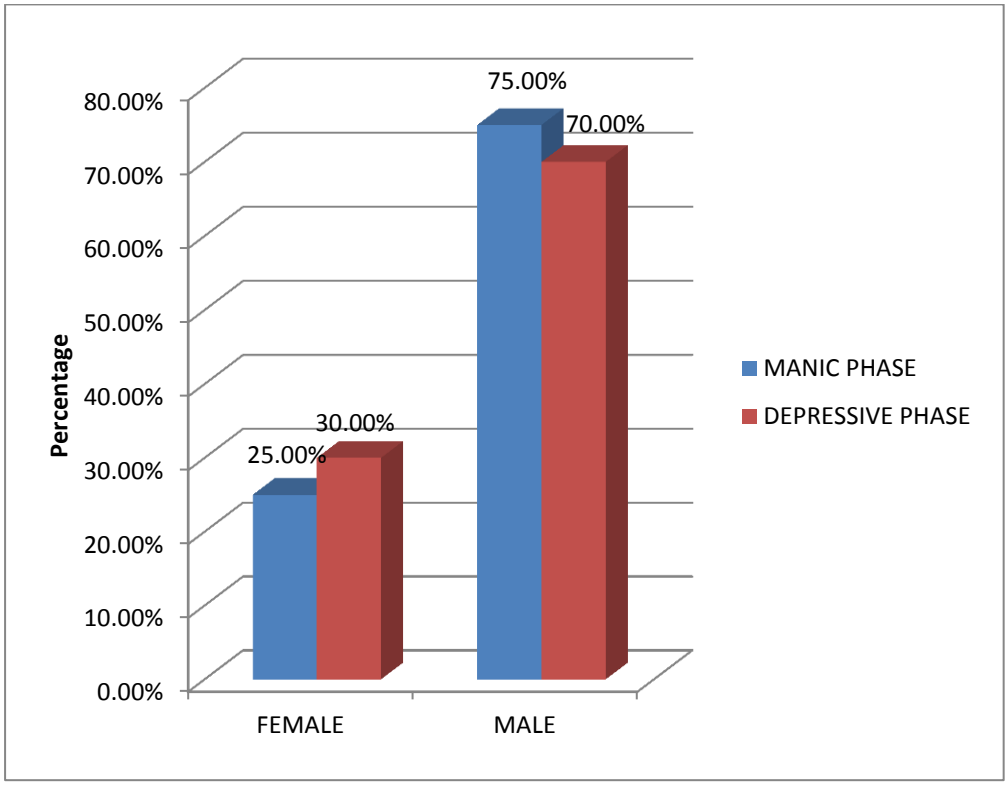


TABLE 3 shows the distribution of Education of the cases between Manic and Depressive groups.

		MANIC PHASE		DEPRESSIVE PHASE		Total	Chi-square value	p-value
		No. of cases	%age	No. of cases	%age			
EDUCATION	ILLITERTATE	1	5.0%	0	0.0%	1	4.602	NS 0.331
	10	4	20.0%	1	5.0%	5		
	12	8	40.0%	9	45.0%	17		
	GRADUATE	3	15.0%	7	35.0%	10		
	POST GRADUATE	4	20.0%	3	15.0%	7		
Total		20	100.0%	20	100.0%	40		

(NS:NOT SIGNIFICANT)

FIGURE 3 shows the distribution of Education of the cases between Manic and Depressive groups.

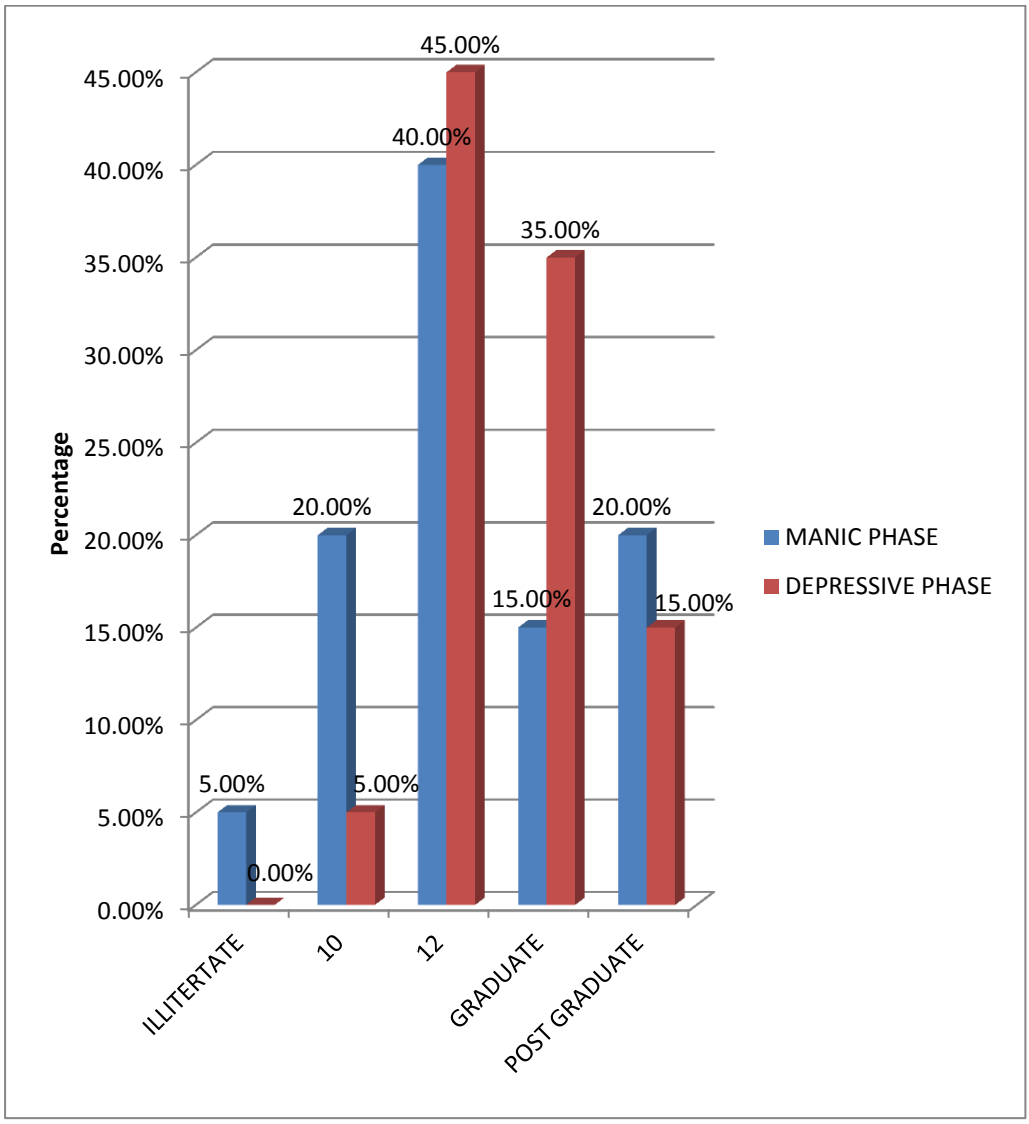


TABLE 4 shows the distribution of Occupation of the cases between Manic and Depressive groups.

		MANIC PHASE		DEPRESSIVE PHASE		Total	Chi-square value	p-value
		No. of cases	%age	No. of cases	%age			
OCCUPATION	FARMER	9	45.0%	8	40.0%	17	4.150	NS 0.386
	PROFESSIONAL	5	25.0%	6	30.0%	11		
	SEMI-SKILLED	1	5.0%	0	0.0%	1		
	STUDENT	2	10.0%	0	0.0%	2		
	UNEMPLOYED	3	15.0%	6	30.0%	9		
Total		20	100.0%	20	100.0%	40		

(NS: NOT SIGNIFICANT)

FIGURE 4 shows the distribution of Occupation of the cases between Manic and Depressive groups.

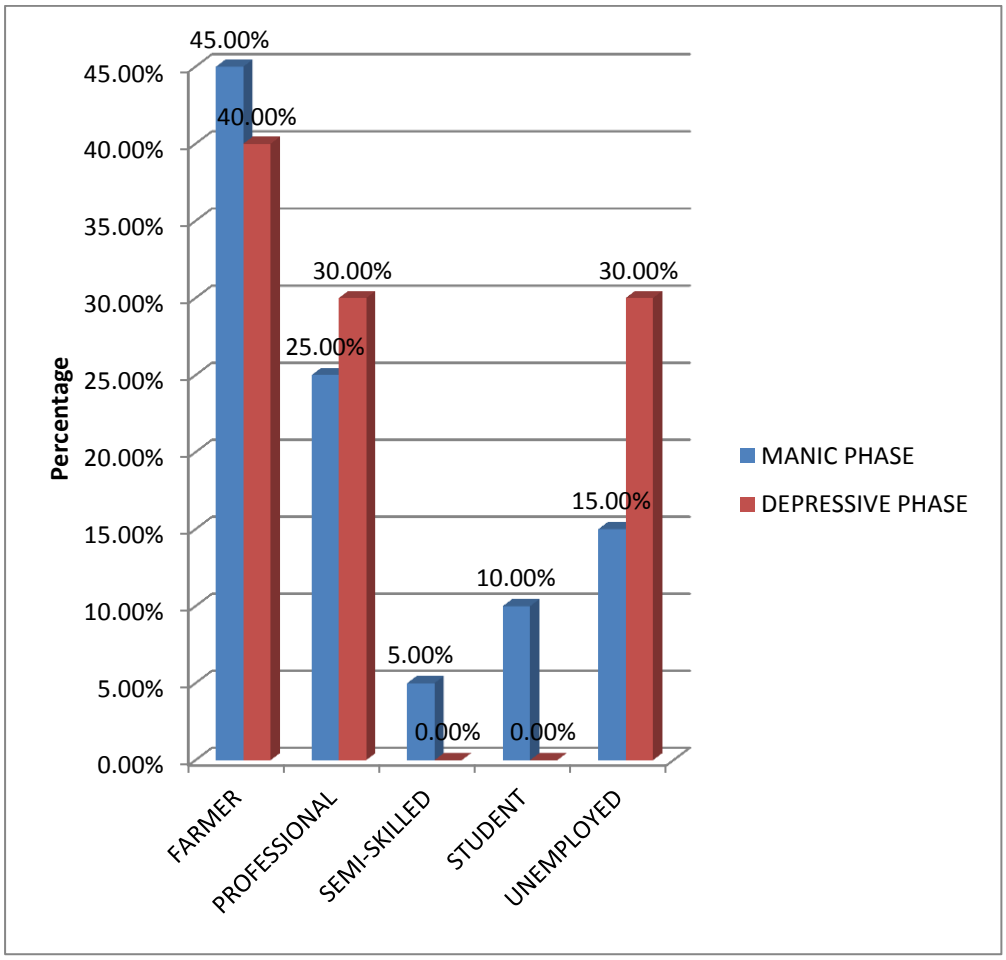


TABLE 5 shows the distribution of Background of the cases between Manic and Depressive groups.

		MANIC PHASE		DEPRESSIVE PHASE		Total	Chi-square value	p-value
		No. of cases	%age	No. of cases	%age			
ADDRESS	RURAL	9	45.0%	4	20.0%	13	2.849	NS 0.176
	URBAN	11	55.0%	16	80.0%	27		
Total		20	100.0%	20	100.0%	40		

(NS: NOT SIGNIFICANT)

FIGURE 5 shows the distribution of Background of the cases between Manic and Depressive groups.

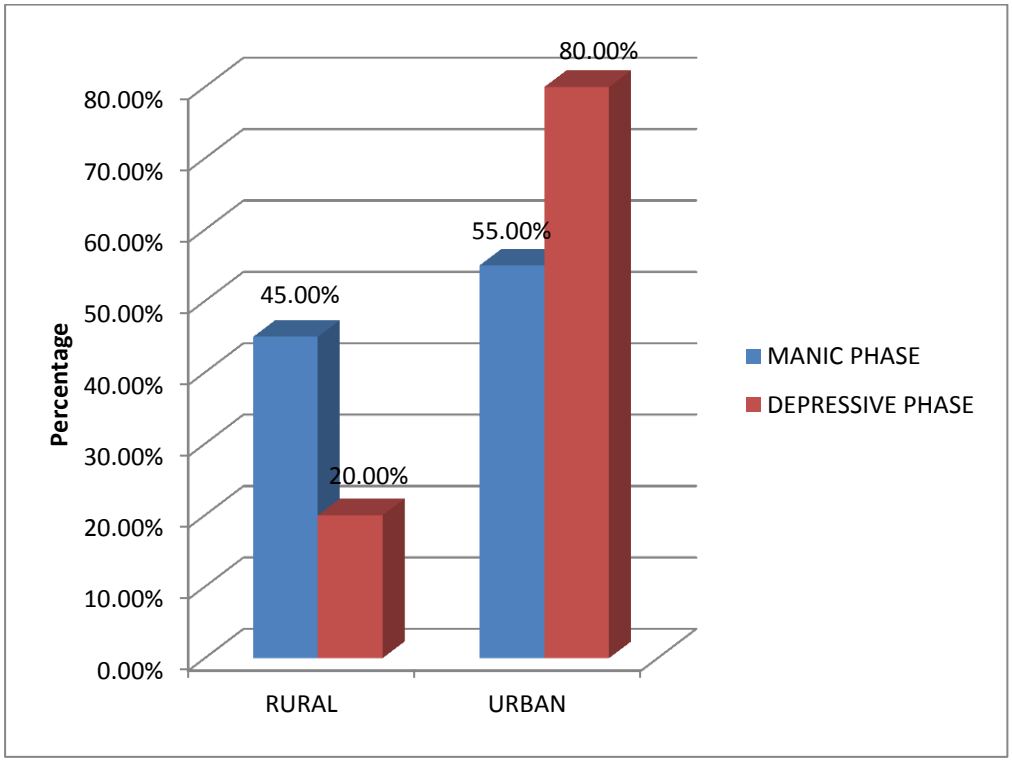


TABLE 6 shows the distribution of Family Type of the cases between Manic and Depressive groups.

		MANIC PHASE		DEPRESSIVE PHASE		Total	Chi-square value	p-value
		No. of cases	%age	No. of cases	%age			
FAMILY TYPE	JOINT	5	25.0%	3	15.0%	8	0.625	NS 0.429
	NUCLEAR	15	75.0%	17	85.0%	32		
Total		20	100.0%	20	100.0%	40		

(NS: NOT SIGNIFICANT)

FIGURE 6 shows the distribution of Family Type of the cases between Manic and Depressive groups.

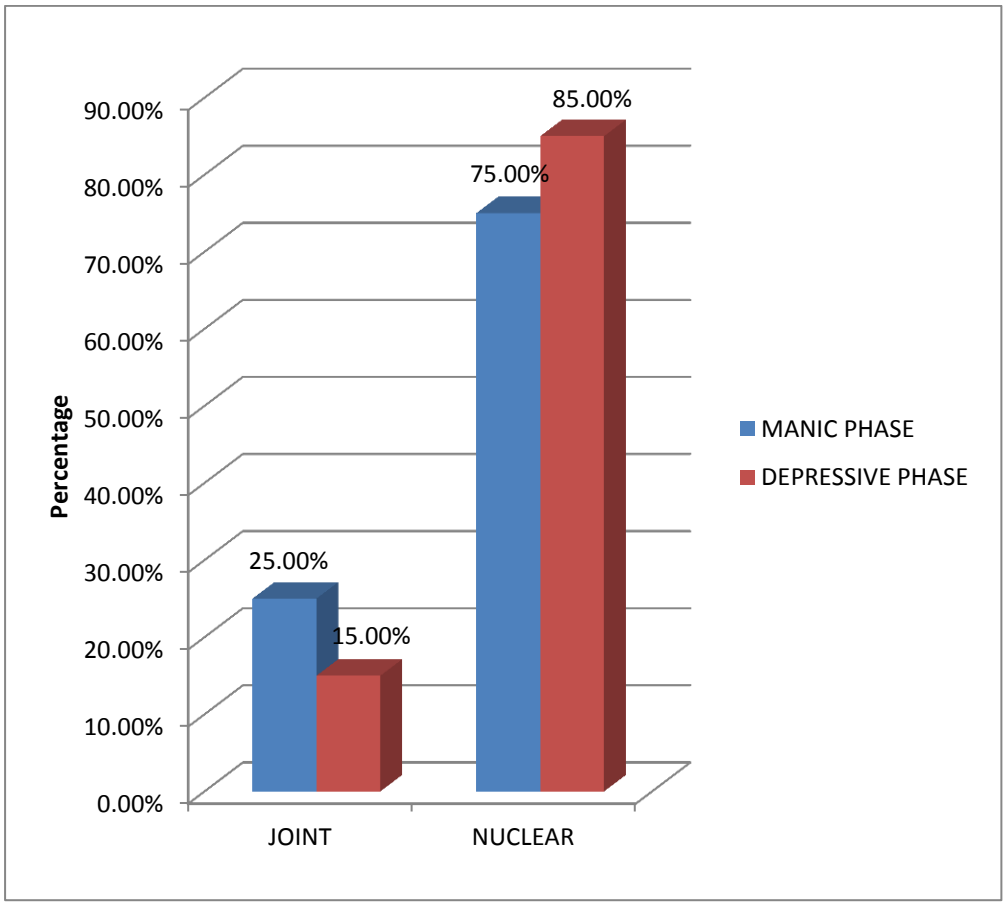


TABLE 7 shows the distribution of Socio-Economic Status of the cases between Manic and Depressive groups.

		MANIC PHASE		DEPRESSIVE PHASE		Total	Chi-square value	p-value
		No. of cases	%age	No. of cases	%age			
SOCIO-ECONOMIC STATUS	LOWER	2	10.0%	0	0.0%	2	6.250.	NS 0.100
	LOWER MIDDLE	6	30.0%	2	10.0%	8		
	UPPER	7	35.0%	7	35.0%	14		
	UPPER MIDDLE	5	25.0%	11	55.0%	16		
Total		20	100.0%	20	100.0%	40		

(NS: NOT SIGNIFICANT)

FIGURE 7 shows the distribution of Socio-Economic Status of the cases between Manic and Depressive groups.

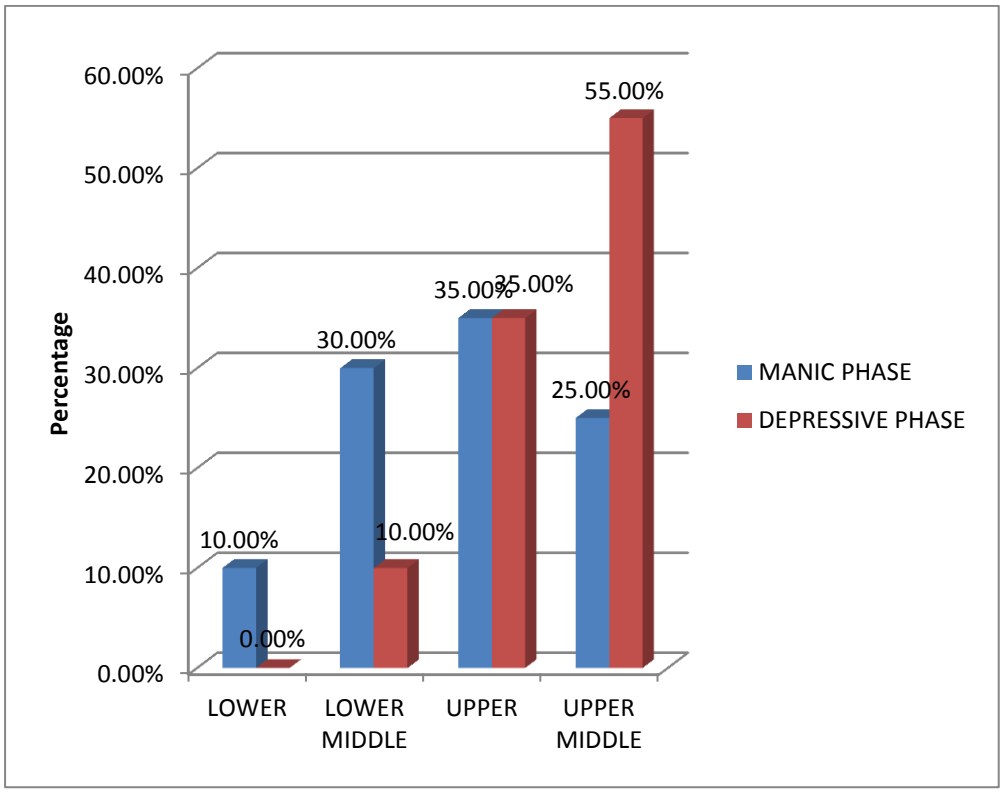
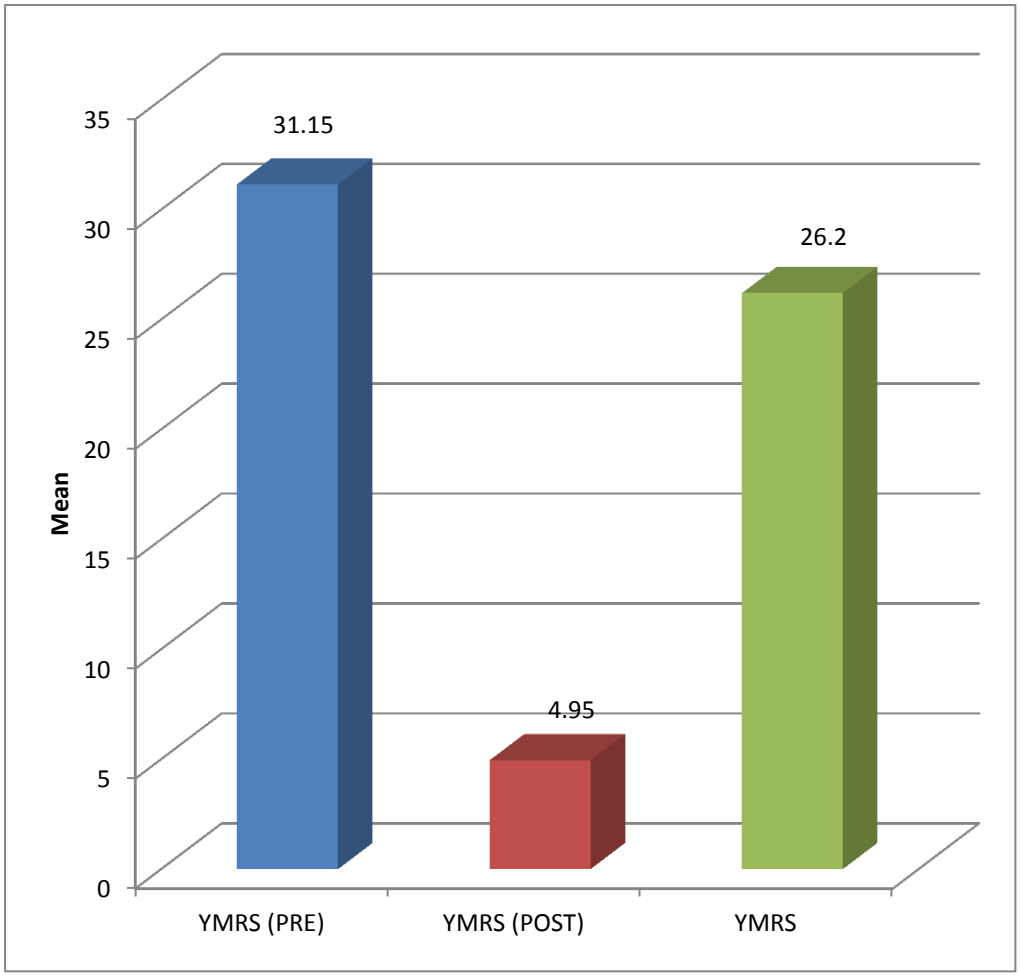


TABLE 8 shows the distribution Pre and Post intervention scores on Young's Mania rating scale (YMRS) in patients in manic phase.

MANIC PHASE		
	Mean	SD
YMRS (PRE)	31.15	8.07
YMRS (POST)	4.95	2.95
YMRS	26.20	7.20

FIGURE 8 shows the distribution Pre and Post intervention scores on Young's Mania rating scale (YMRS) in patients in manic phase.

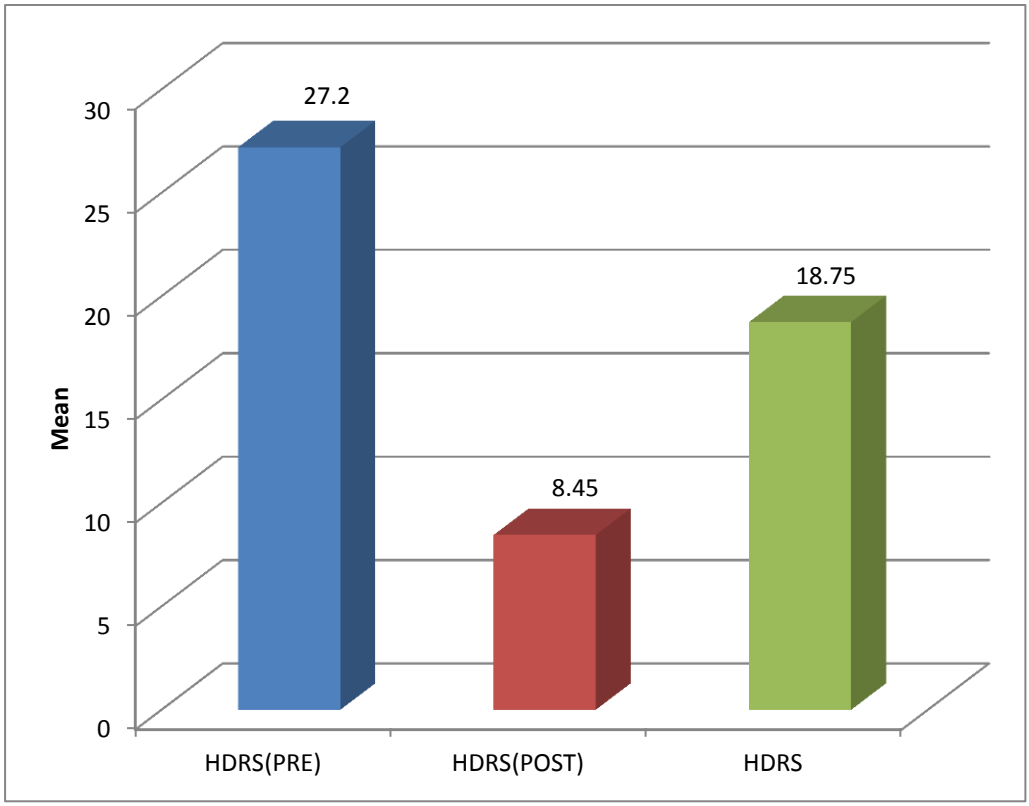


(YMRS: Young's Mania Rating Scale)

TABLE 9 shows the distribution Pre and Post intervention scores on Hamilton Depression Rating scale (HDRS) in patients in Depressive phase.

DEPRESSIVE PHASE		
	Mean	SD
HDRS(PRE)	27.20	5.80
HDRS(POST)	8.45	4.41
HDRS	18.75	6.26

FIGURE 9 shows the distribution Pre and Post intervention scores on Hamilton Depression Rating scale (HDRS) in patients in Depressive phase.



(HDRS: Hamilton Depression Rating Scale)

TABLE 10 shows distribution of Pre and Post intervention scores on Social Skill Inventory Subscales in Manic Phase.

MANIC PHASE	PRE		POST		t	p-value	Difference	
SOCIAL SKILL INVENTORY	Mean	SD	Mean	SD			Mean	SD
EMOTIONAL EXPRESSIVITY	39.90	10.14	50.30	9.40	-3.470	**0.003**	-10.40	13.40
EMOTIONAL SENSITIVITY	37.85	4.17	48.30	6.26	-7.750	**0.001**	-10.45	6.03
EMOTIONAL CONTROL	34.30	10.81	40.25	5.12	-1.952	**0.066**	-5.95	13.63
SOCIAL EXPRESSIVITY	32.00	5.66	48.05	8.61	-7.300	**0.001**	-16.05	9.83
SOCIAL SENSITIVITY	44.40	8.00	38.00	9.48	2.463	**0.023**	6.40	11.62
SOCIAL CONTROL	46.20	13.23	57.05	4.98	-3.877	**0.001**	-10.85	12.52
TOTAL EMOTIONAL	111.05	19.01	138.85	14.59	-5.361	**0.001**	-27.80	23.19
TOTAL SOCIAL	122.30	20.12	143.10	8.64	-4.859	**0.001**	-20.80	19.14
EXPRESSIVITY	71.90	14.33	98.35	16.95	-5.481	**0.001**	-26.45	21.58
SENSITIVITY	82.25	9.24	86.30	8.14	-1.812	NS 0.086	-4.05	10.00
CONTROL	80.20	20.73	97.30	5.31	-3.591	**0.002**	-17.10	21.30

(NS: NOT SGNFICANT)

FIGURE 10 shows distribution of Pre and Post intervention scores on Social Skill Inventory Subscales in Manic Phase

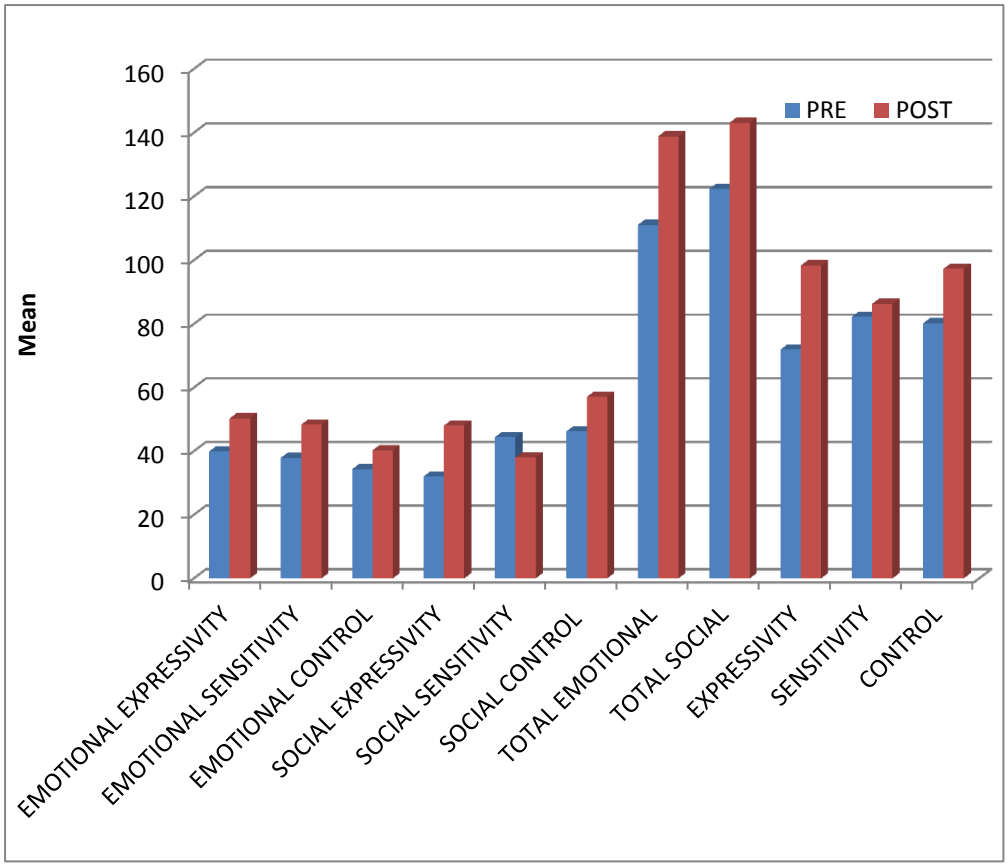


TABLE 11 shows distribution of Pre and Post intervention scores on Social Skill Inventory Total S.S.I in Manic Phase.

MANIC PHASE	PRE		POST		t	p-value	Difference	
	Mean	SD	Mean	SD			Mean	SD
TOTAL SOCIAL SKILL INDEX	234.35	37.89	281.95	18.86	-5.577	**0.001**	-47.60	38.17

(S.S.I.: Social Skill Index)

FIGURE 11 shows distribution of Pre and Post intervention scores on Social Skill Inventory Total S.S.I in Manic Phase.

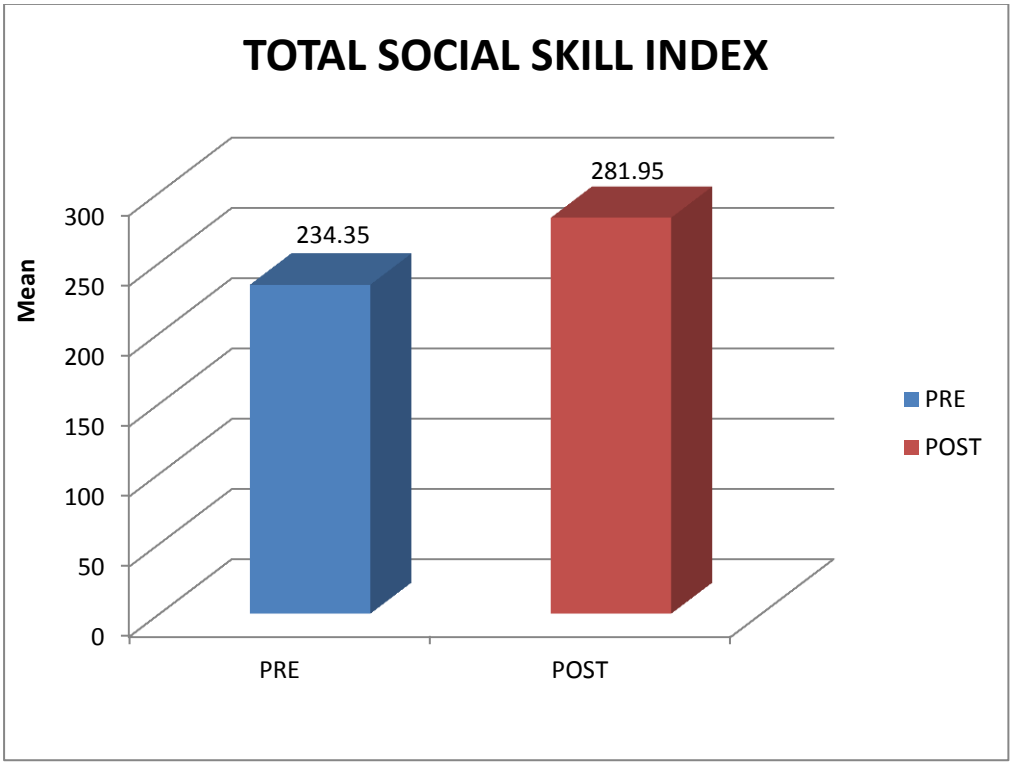


TABLE 12 shows distribution of Pre and Post scores on Family Emotional Involvement and Criticism Scale subscales in Manic phase.

MANIC PHASE	PRE		POST		t	p-value	Difference	
FAMILY EMOTIONAL INVOLVEMENT AND CRITICISM SCALE	Mean	SD	Mean	SD			Mean	SD
EMOTIONAL OVER INVOLVEMENT	17.55	7.14	11.45	4.57	3.100	**0.006**	6.10	8.80
PERCEIVED CRITICISM	16.20	5.12	12.70	3.13	2.142	**0.045**	3.50	7.31

FIGURE 12 shows distribution of Pre and Post scores on Family Emotional Involvement and Criticism Scale subscales in Manic phase.

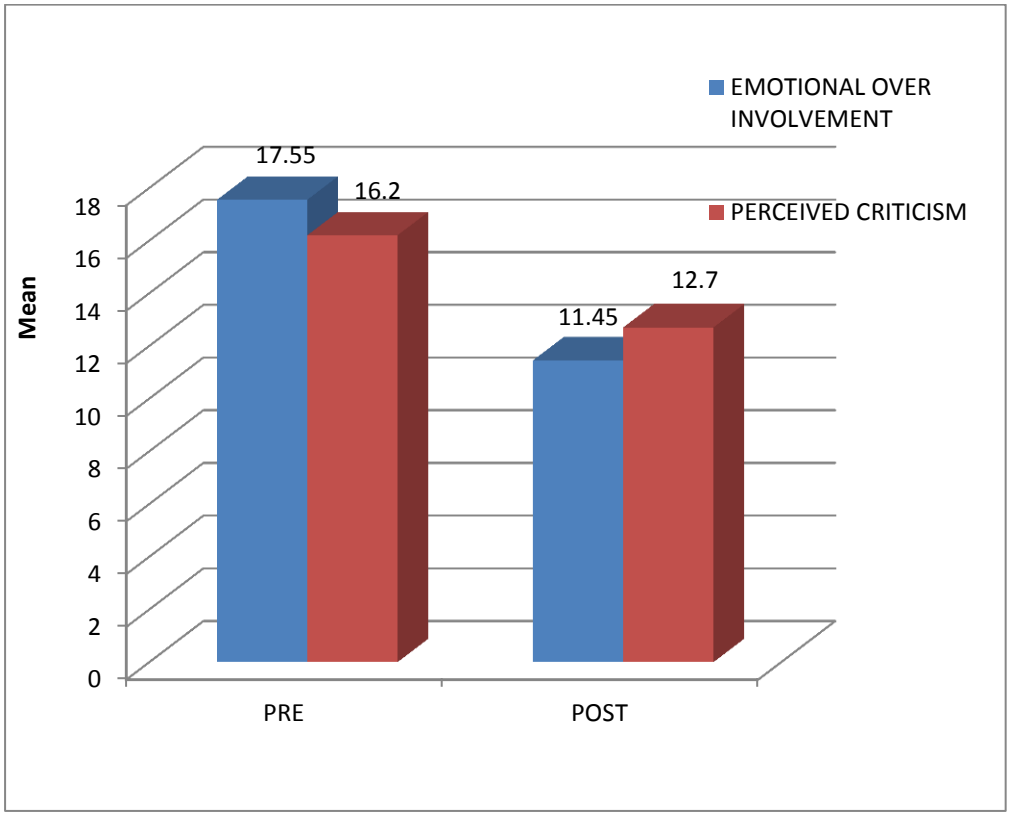


TABLE 13 shows distribution of Pre and Post intervention scores on Social Skill Inventory subscales in Depressive Phase.

DEPRESSIVE PHASE	PRE		POST		t	p-value	Difference	
SOCIAL SKILL INVENTORY	Mean	SD	Mean	SD			Mean	SD
EMOTIONAL EXPRESSIVITY	47.20	9.08	53.05	8.97	-2.057	**0.054**	-5.85	12.72
EMOTIONAL SENSITIVITY	40.90	13.76	47.45	11.39	-1.445	NS 0.165	-6.55	20.27
EMOTIONAL CONTROL	39.55	5.73	39.00	4.69	0.343	NS 0.735	0.55	7.17
SOCIAL EXPRESSIVITY	45.00	10.25	50.65	12.80	-1.301	NS 0.209	-5.65	19.42
SOCIAL SENSITIVITY	38.15	8.22	39.20	7.27	-0.497	NS 0.625	-1.05	9.44
SOCIAL CONTROL	55.20	9.34	58.85	8.60	-1.249	NS 0.227	-3.65	13.07
TOTAL EMOTIONAL	127.65	19.84	139.50	21.33	-1.687	NS 0.108	-11.85	31.42
TOTAL SOCIAL	138.35	14.76	148.70	16.73	-1.725	NS 0.101	-10.35	26.83
EXPRESSIVITY	92.20	18.38	103.70	20.35	-1.696	NS 0.106	-11.50	30.33
SENSITIVITY	79.05	13.58	86.65	14.14	-1.658	NS 0.114	-7.60	20.49
CONTROL	94.80	6.68	97.85	8.59	-1.163	NS 0.259	-3.05	11.73

(NS: NOT SIGNIFICANT)

FIGURE 13 shows distribution of Pre and Post intervention scores on Social Skill Inventory subscales in Depressive Phase.

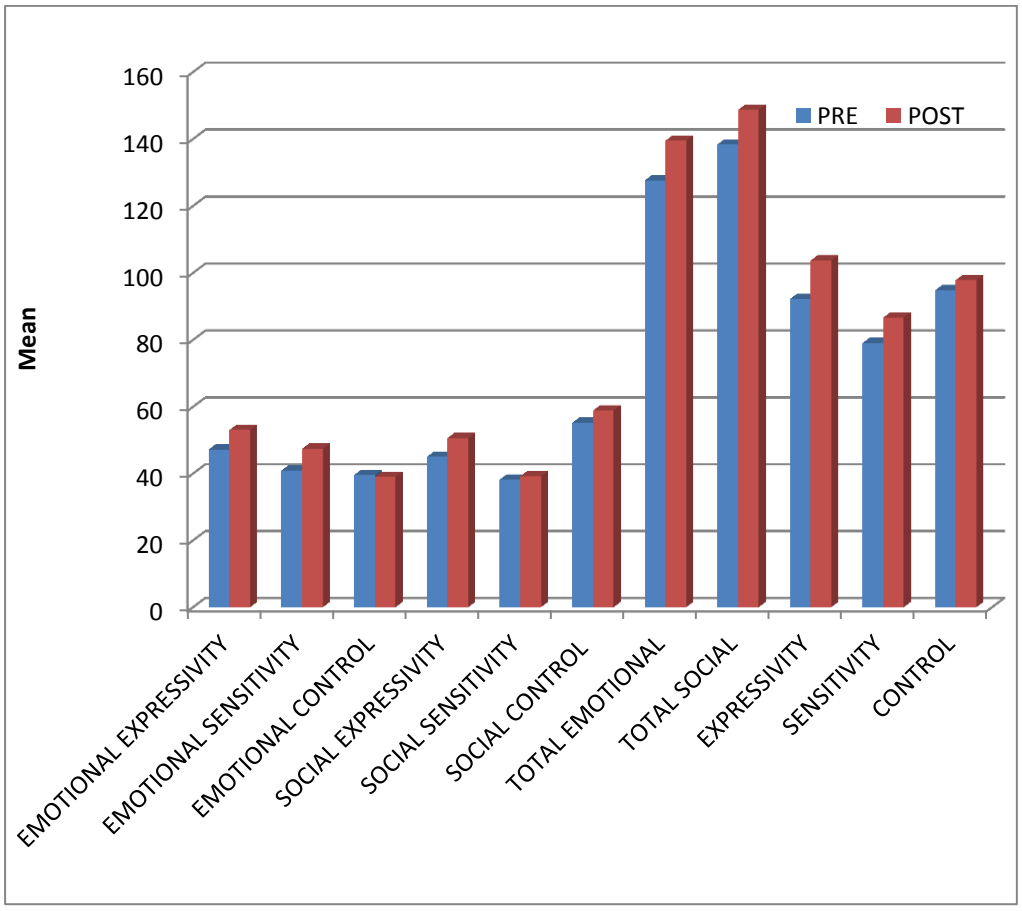


TABLE 14 shows distribution of Pre and Post intervention scores on Social Skill Inventory Total S.S.I in Depressive Phase.

DEPRESSIVE PHASE	PRE		POST		t	p-value	Difference	
	Mean	SD	Mean	SD			Mean	SD
TOTAL SOCIAL SKILL INDEX	266.00	29.41	288.20	35.13	-1.923	**0.070**	-22.20	51.62

(S.S.I.: Social Skill Index)

FIGURE 14 shows distribution of Pre and Post intervention scores on Social Skill Inventory Total S.S.I in Depressive Phase.

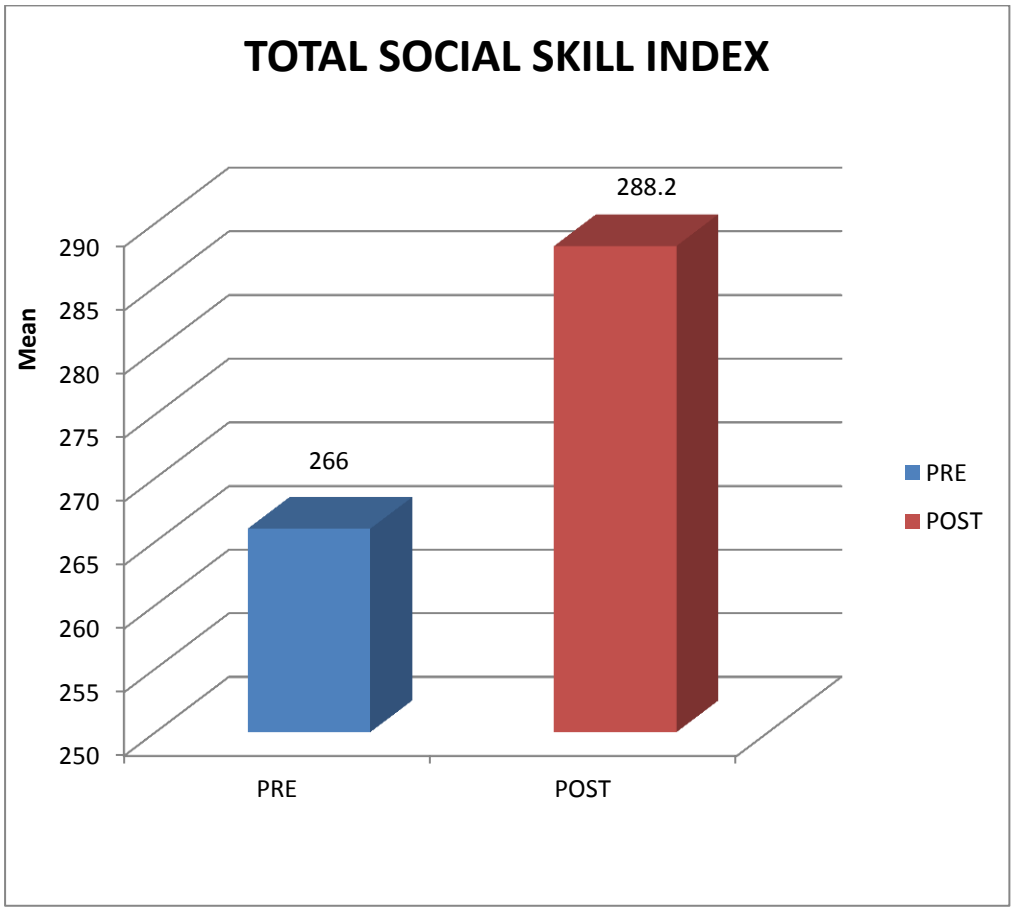


TABLE 15 shows distribution of Pre and Post intervention scores on Family Emotional Involvement and Criticism Scale subscale scores in Depressive phase.

DEPRESSIVE PHASE	PRE		POST		t	p-value	Difference	
FAMILY EMOTIONAL INVOLVEMENT AND CRITICISM SCALE	Mean	SD	Mean	SD			Mean	SD
EMOTIONAL OVER INVOLVEMENT	21.95	3.03	7.05	2.11	21.783	**0.001**	14.90	3.06
PERCEIVED CRITICISM	17.40	2.72	9.80	2.61	7.736	**0.001**	7.60	4.39

FIGURE 15 shows distribution of Pre and Post intervention scores on Family Emotional Involvement and Criticism Scale subscale scores in Depressive phase.

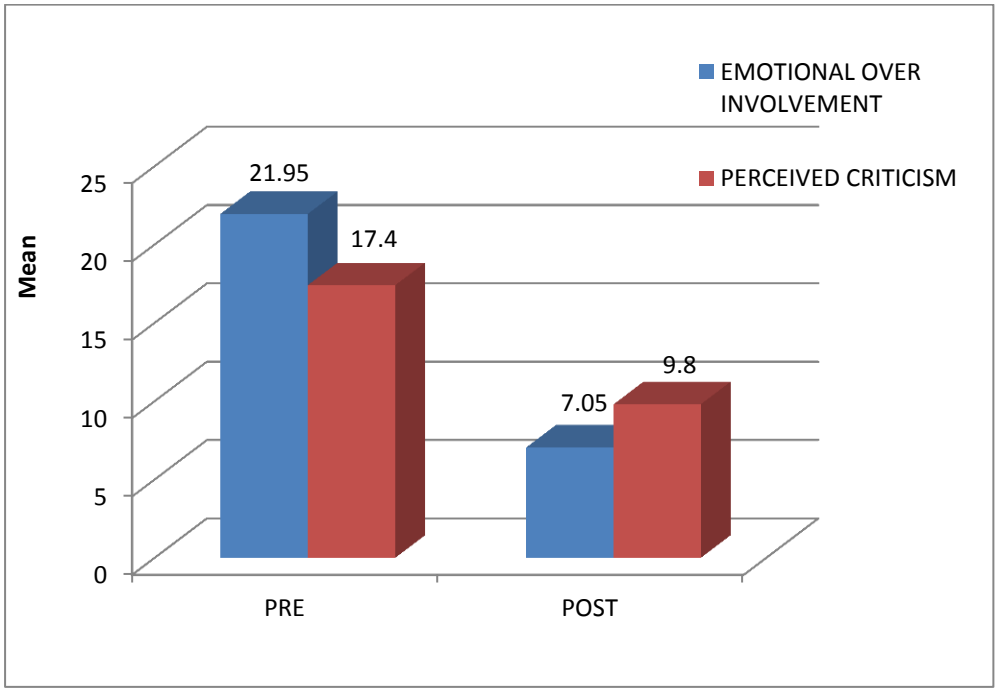


TABLE 16 shows comparison of Pre and Post intervention scores on Emotional Expressivity (Social Skill) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE EMOTIONAL EXPRESSIVITY	39.90	10.14	47.20	9.08	-1.480	NS 0.139
POST EMOTIONAL EXPRESSIVITY	50.30	9.40	53.05	8.97	-0.683	NS 0.495
EMOTIONAL EXPRESSIVITY	-10.40	13.40	-5.85	12.72	-0.745	NS 0.456

(NS: NOT SIGNIFICANT)

FIGURE 16 shows comparison of Pre and Post intervention scores on Emotional Expressivity (Social Skill) in Manic and Depressive phase.

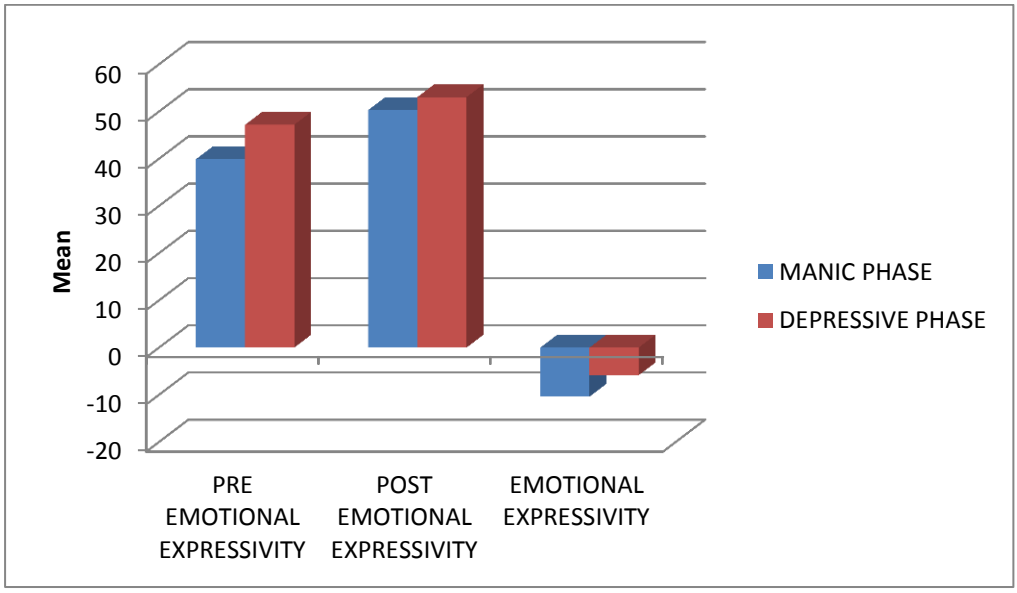


TABLE 17 shows comparison of Pre and Post intervention scores on Emotional Sensitivity (Social Skill) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE EMOTIONAL SENSITIVITY	37.85	4.17	40.90	13.76	-2.403	**0.016**
POST EMOTIONAL SENSITIVITY	48.30	6.26	47.45	11.39	-0.435	NS 0.663
EMOTIONAL SENSITIVITY	-10.45	6.03	-6.55	20.27	-1.435	NS 0.151

(NS: NOT SIGNIFICANT)

FIGURE17 shows comparison of Pre and Post intervention scores on Emotional Sensitivity (Social Skill) in Manic and Depressive phase.

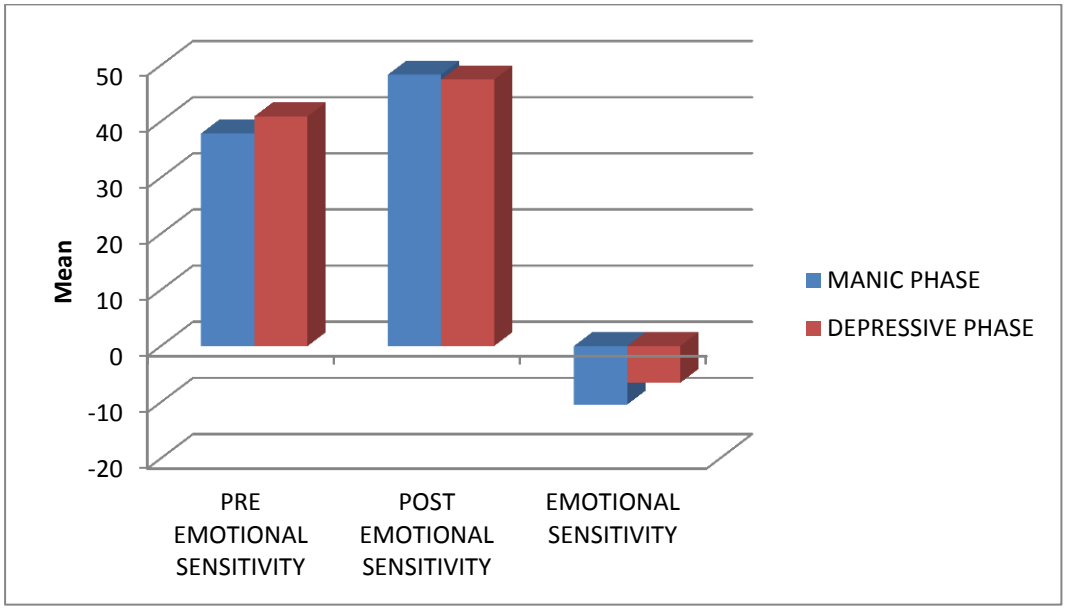


TABLE 18 shows comparison of Pre and Post intervention scores on Emotional Control (Social Skill) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE EMOTIONAL CONTROL	34.30	10.81	39.55	5.73	-1.208	NS 0.227
POST EMOTIONAL CONTROL	40.25	5.12	39.00	4.69	-0.326	NS 0.744
EMOTIONAL CONTROL	-5.95	13.63	0.55	7.17	-1.395	NS 0.163

(NS: NOT SIGNIFICANT)

FIGURE18 shows comparison of Pre and Post intervention scores on Emotional Control (Social Skill) in Manic and Depressive phase.

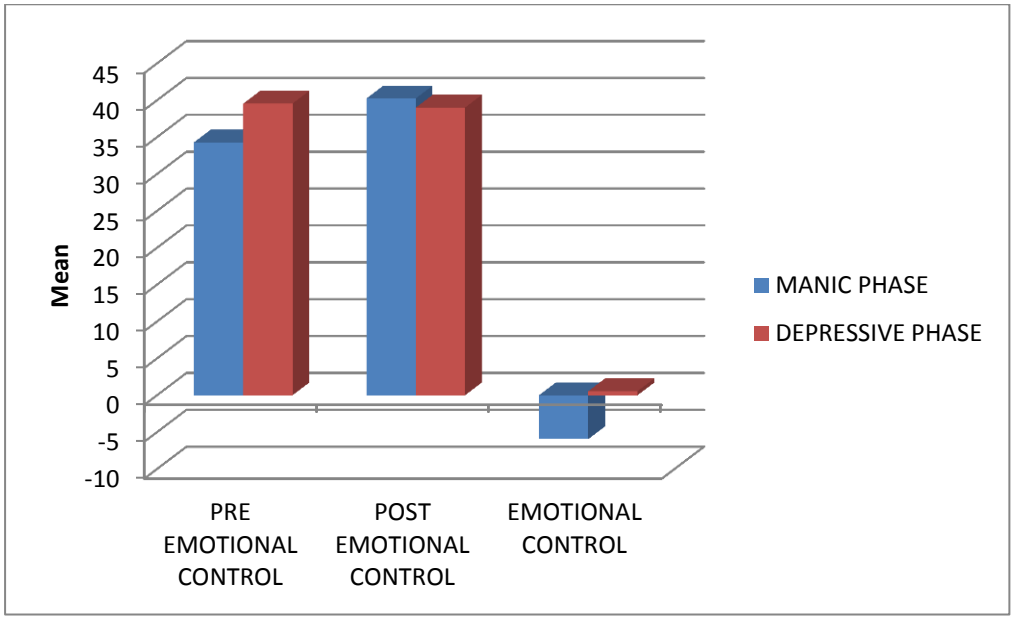


TABLE 19 shows comparison of Pre and Post intervention scores on Social Expressivity (Social Skill) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE SOCIAL EXPRESSIVITY	32.00	5.66	45.00	10.25	-4.096	**0.001**
POST SOCIAL EXPRESSIVITY	48.05	8.61	50.65	12.80	-1.003	NS 0.316
SOCIAL EXPRESSIVITY	-16.05	9.83	-5.65	19.42	-1.436	NS 0.151

(NS: NOT SIGNIFICANT)

FIGURE 19 shows comparison of Pre and Post intervention scores on Social Expressivity (Social Skill) in Manic and Depressive phase.

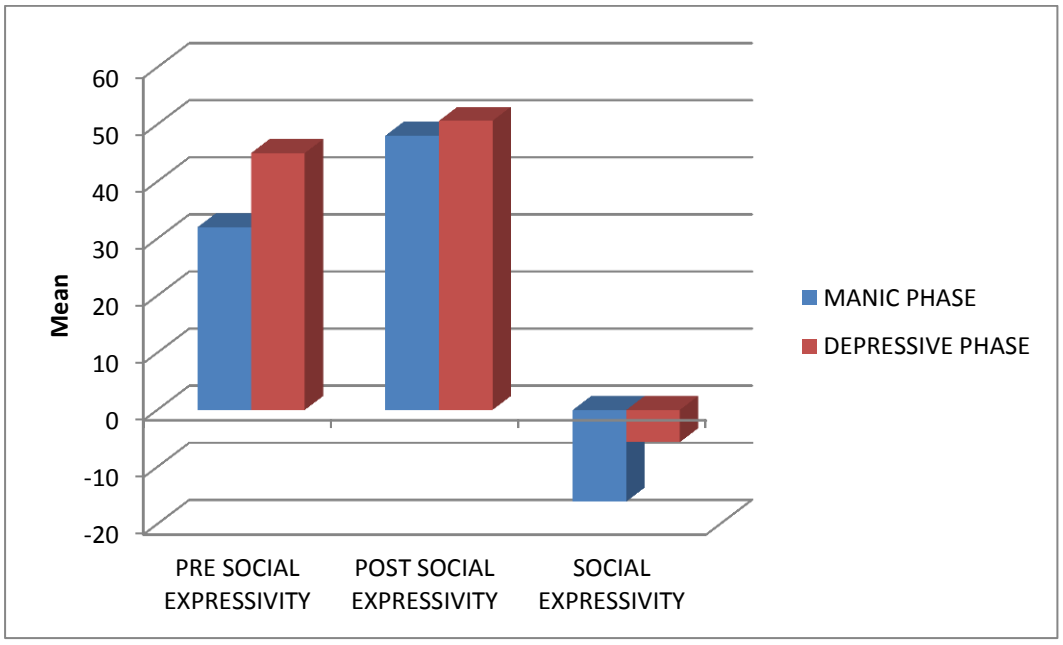


TABLE 20 shows comparison of Pre and Post intervention scores on Social Sensitivity (Social Skill) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE SOCIAL SENSITIVITY	44.40	8.00	38.15	8.22	-2.175	**0.030**
POST SOCIAL SENSITIVITY	38.00	9.48	39.20	7.27	-0.258	NS 0.797
SOCIAL SENSITIVITY	6.40	11.62	-1.05	9.44	-2.072	0.038

(NS: NOT SIGNIFICANT)

FIGURE 20 shows comparison of Pre and Post intervention scores on Social Sensitivity (Social Skill) in Manic and Depressive phase.

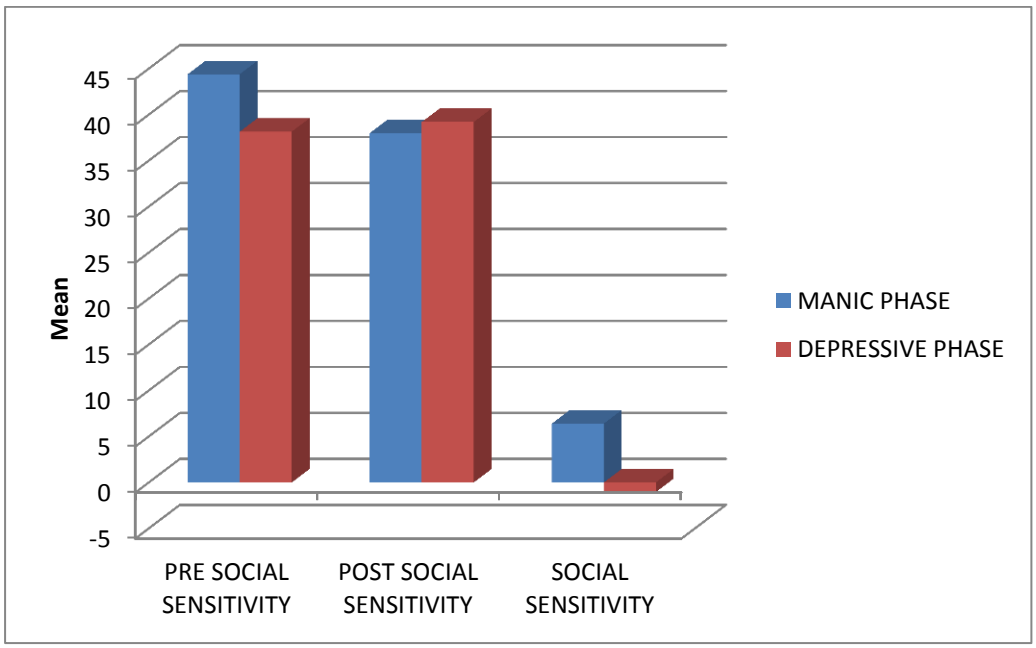


TABLE 21 shows comparison of Pre and Post intervention scores on Social Control (Social Skill) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE SOCIAL CONTROL	46.20	13.23	55.20	9.34	-2.266	**0.023**
POST SOCIAL CONTROL	57.05	4.98	58.85	8.60	-1.560	NS 0.119
SOCIAL CONTROL	-10.85	12.52	-3.65	13.07	-1.504	NS 0.133

(NS: NOT SIGNIFICANT)

FIGURE 21 shows comparison of Pre and Post intervention scores on Social Control (Social Skill) in Manic and Depressive phase.

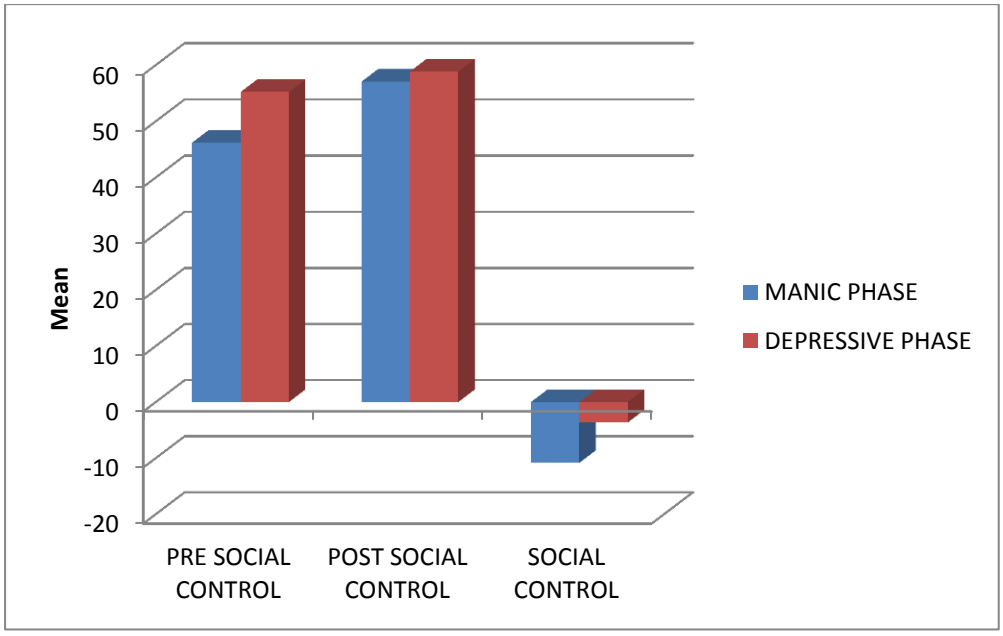


TABLE 22 shows comparison of Pre and Post intervention scores on Total Emotional (Social Skill) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE TOTAL EMOTIONAL	111.05	19.01	127.65	19.84	-2.614	**0.009**
POST TOTAL EMOTIONAL	138.85	14.59	139.50	21.33	-0.596	NS 0.551
TOTAL EMOTIONAL	-27.80	23.19	-11.85	31.42	-1.610	NS 0.107

(NS: NOT SIGNIFICANT)

FIGURE 22 shows comparison of Pre and Post intervention scores on Total Emotional (Social Skill) in Manic and Depressive phase.

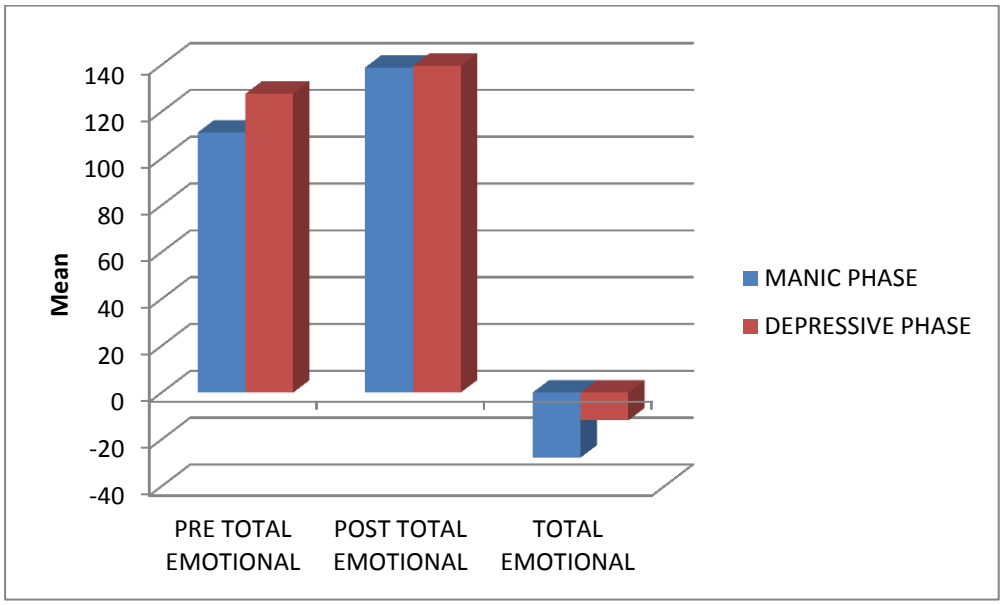


TABLE 23 shows comparison of Pre and Post intervention scores on Total Social (Social Skill) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE TOTAL SOCIAL	122.30	20.12	138.35	14.76	-3.005	**0.003**
POST TOTAL SOCIAL	143.10	8.64	148.70	16.73	-1.802	NS 0.072
TOTAL SOCIAL	-20.80	19.14	-10.35	26.83	-0.975	NS 0.330

(NS: NOT SIGNIFICANT)

FIGURE 23 shows comparison of Pre and Post intervention scores on Total Social (Social Skill) in Manic and Depressive phase.

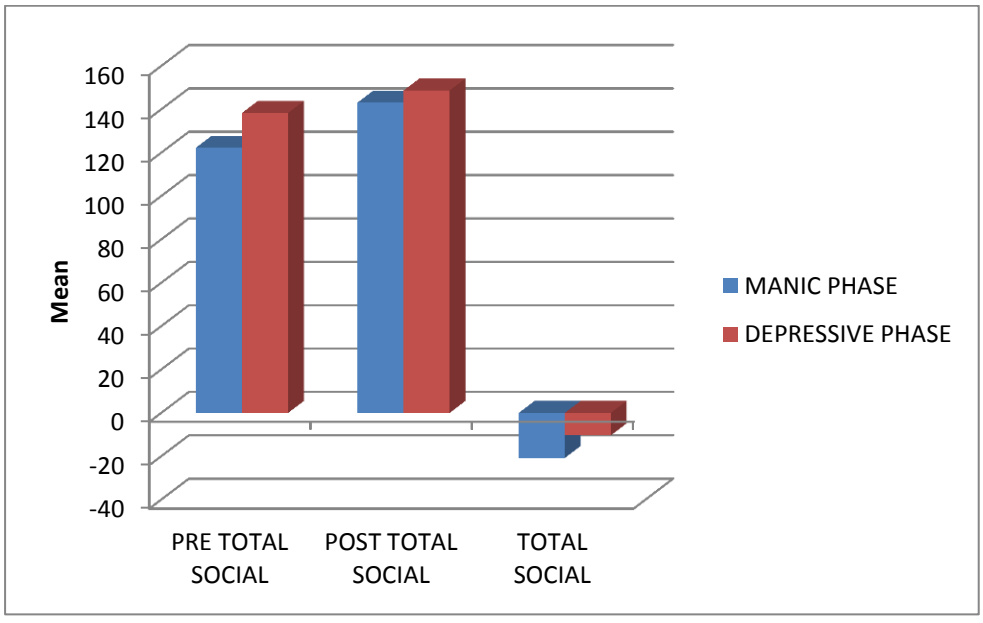


TABLE 24 shows comparison of Pre and Post intervention scores on Expressivity (Social Skill) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE EXPRESSIVITY	71.90	14.33	92.20	18.38	-3.320	**0.001**
POST EXPRESSIVITY	98.35	16.95	103.70	20.35	-1.002	NS 0.316
EXPRESSIVITY	-26.45	21.58	-11.50	30.33	-1.326	NS 0.185

(NS: NOT SIGNIFICANT)

FIGURE 24 shows comparison of Pre and Post intervention scores on Expressivity (Social Skill) in Manic and Depressive phase.

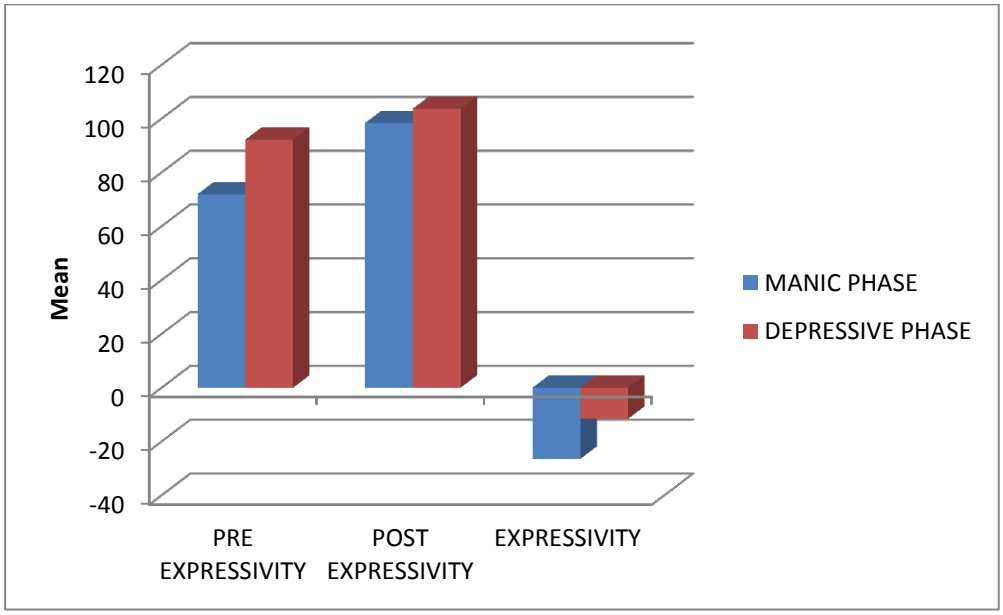


TABLE 25 shows comparison of Pre and Post intervention scores on Sensitivity (Social Skill) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRESENSITIVITY	82.25	9.24	79.05	13.58	-0.258	NS 0.797
POSTSENSITIVITY	86.30	8.14	86.65	14.14	-0.393	NS 0.694
SENSITIVITY	-4.05	10.00	-7.60	20.49	-0.609	NS 0.543

(NS: NOT SIGNIFICANT)

FIGURE 25 shows comparison of Pre and Post intervention scores on Sensitivity (Social Skill) in Manic and Depressive phase.

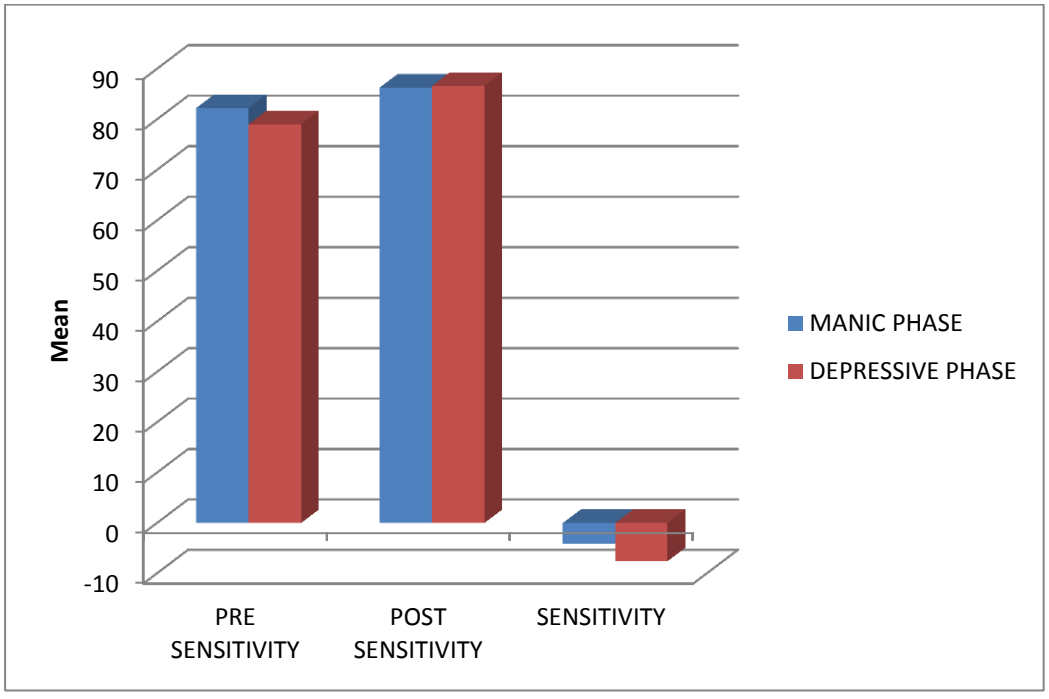


TABLE 26 shows comparison of Pre and Post intervention scores on Control (Social Skill) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	Pvalue
	Mean	SD	Mean	SD		
PRE CONTROL	80.20	20.73	94.80	6.68	-3.494	**0.001**
POST CONTROL	97.30	5.31	97.85	8.59	-0.963	NS 0.335
CONTROL	-17.10	21.30	-3.05	11.73	-2.181	0.029

(NS: NOT SIGNIFICANT)

FIGURE 26 shows comparison of Pre and Post intervention scores on Control (Social Skill) in Manic and Depressive phase.

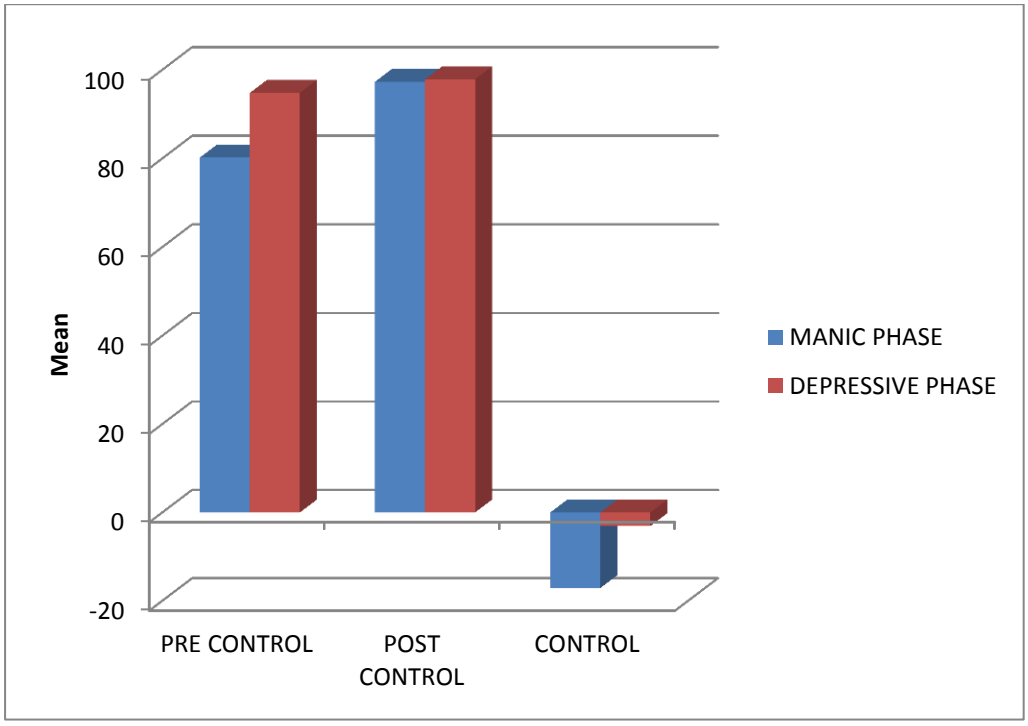


TABLE 27 shows comparison of Pre and Post intervention scores on Total Social Skill Index (S.S.I.) in Manic and Depressive phase.

	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE TOTAL SOCIAL SKILL INDEX	234.35	37.89	266.00	29.41	-2.936	**0.003**
POST TOTAL SOCIAL SKILL INDEX	281.95	18.86	288.20	35.13	-1.367	NS 0.172
TOTAL SOCIAL SKILL INDEX	-47.60	38.17	-22.20	51.62	-1.584	NS 0.113

(NS: NOT SIGNIFICANT)

FIGURE 27 shows comparison of Pre and Post intervention scores on Total Social Skill Index (S.S.I.) in Manic and Depressive phase.

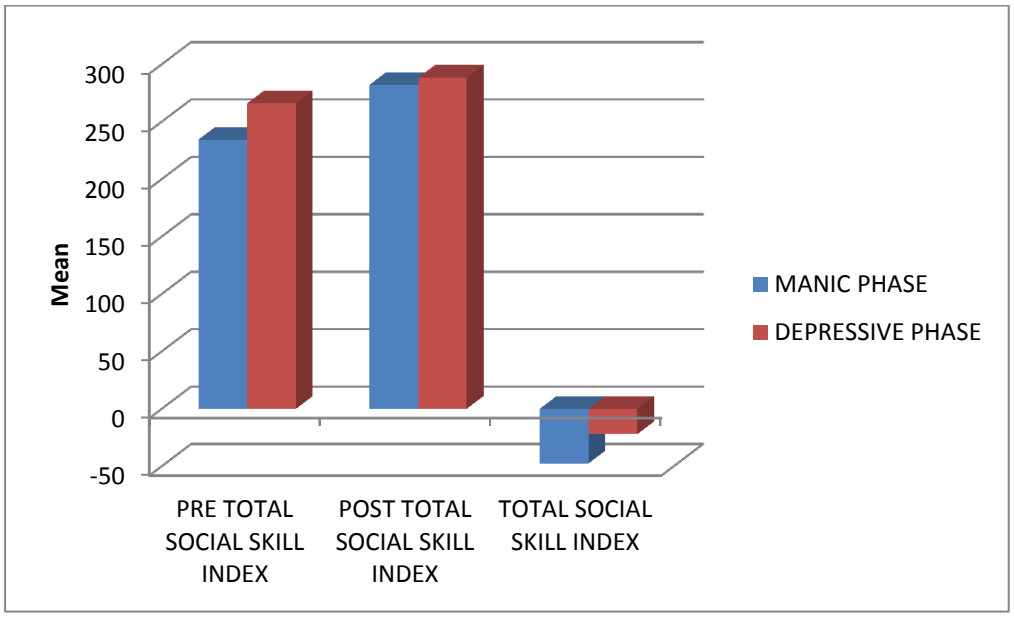


TABLE 28 shows comparison of Pre and Post intervention scores on Emotional over Involvement (Expressed Emotion) in Manic and Depressive phase.

FAMILY EMOTIONAL INVOLVEMENT AND CRITICISM SCALE	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE EMOTIONAL OVER INVOLVEMENT	17.55	7.14	21.95	3.03	-1.671	NS 0.095
POST EMOTIONAL OVER INVOLVEMENT	11.45	4.57	7.05	2.11	-3.075	**0.002**
EMOTIONAL OVER INVOLVEMENT	6.10	8.80	14.90	3.06	-3.348	**0.001**

FIGURE28 shows comparison of Pre and Post intervention scores on Emotional over Involvement (Expressed Emotion) in Manic and Depressive phase.

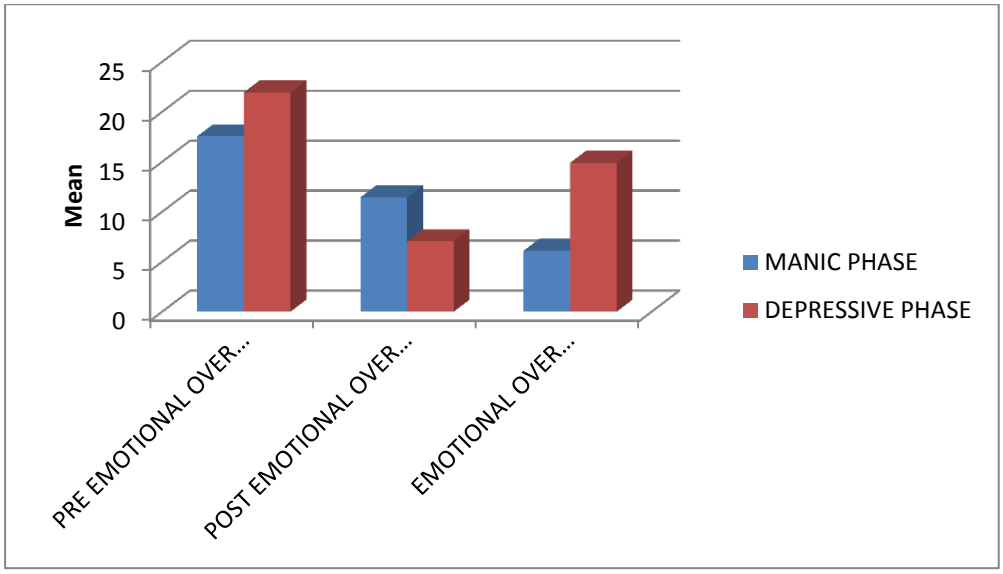
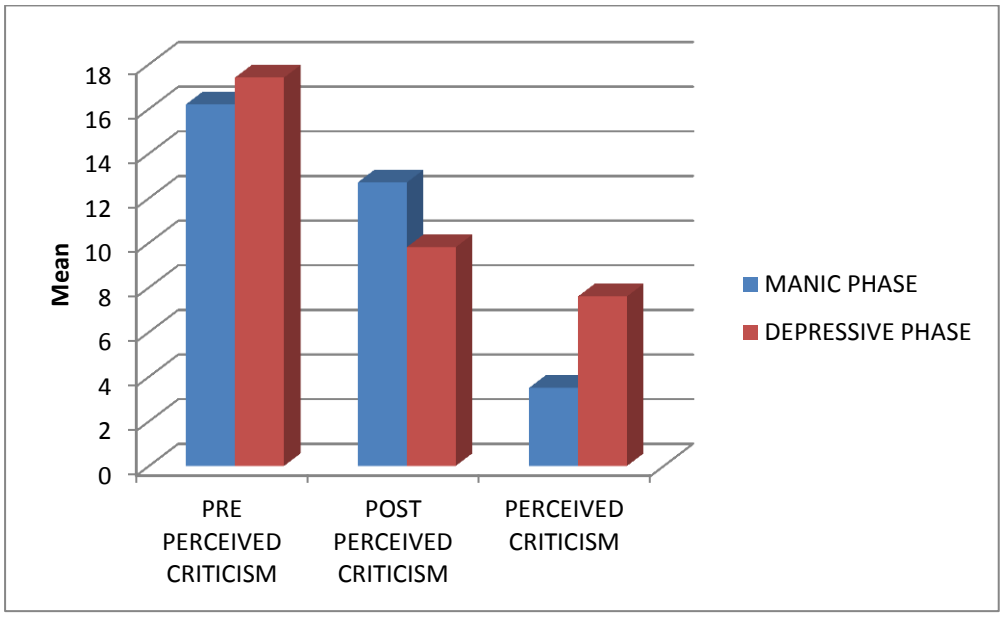


TABLE 29 shows comparison of Pre and Post intervention scores on Perceived Criticism (Expressed Emotion) in Manic and Depressive phase.

FAMILY EMOTIONAL INVOLVEMENT AND CRITICISM SCALE	MANIC PHASE		DEPRESSIVE PHASE		Z	p-value
	Mean	SD	Mean	SD		
PRE PERCEIVED CRITICISM	16.20	5.12	17.40	2.72	-0.518	NS 0.604
POST PERCEIVED CRITICISM	12.70	3.13	9.80	2.61	-2.669	**0.008**
PERCEIVED CRITICISM	3.50	7.31	7.60	4.39	-1.856	**0.063**

(NS: NOT SIGNIFICANT)

FIGURE 29 shows comparison of Pre and Post intervention scores on Perceived Criticism (Expressed Emotion) in Manic and Depressive phase.



RESULTS

The present study was conducted to study the effect of Social Cognition and Interaction Training on Social Skills Deficit and Family Focused Therapy on Expressed Emotions in patients with Bipolar Affective Disorder. The study was conducted in the department of Psychiatry, Dayanand Medical College and Hospital, Ludhiana on 40 participants diagnosed with Bipolar Affective Disorder (20 in Manic phase and 20 in Depressive phase) as per ICD-10 criteria between the age range of 18 to 55 years. Purposive sampling was used for the selection of the participants. The subjects were initially assessed on Hamilton Depression Rating Scale for assessing severity of depressive symptoms, Young's Mania Rating Scale for assessing severity of manic symptoms, Family Emotional Involvement and Perceived Criticism Scale to assess the expressed emotions, Social Skill Inventory to assess the social skills deficit. 6 sessions of Family Focused Therapy and 7 Individual sessions of Social Cognition Interaction Training ranging approximately for an hour were carried out with the participants. Post the intervention, they were reassessed on the above-mentioned measures for severity of symptomology, expressed emotions and social skills deficit. Thus, the data collected was tabulated and then analyzed using SPSS. The following results were obtained:

The Table 1 and Figure 1 show the mean Age of participants in Manic phase and Depressive phase. The age range chose for the study was 18 to 55 years. Mean age for manic group was 34.70 with standard deviation of 9.52. Mean age for Depressive group was 34.70 with standard deviation of 7.99. The mean age of the groups was compared using the student t-test and the value obtained was not significant indicating homogeneity of the groups.

The Table 2 and Figure 2 show the Gender distribution among the participants in Manic and Depressive groups. The picture is dominated by the male patients. 75% of the patients were males in Manic phase

and 25% were females whereas 70% of the patients were males in Depressive phase and 30% were females.

The Table 3 and Figure 3 shows the distribution of Education of the cases in Manic and Depressive groups. In the Manic group, 5% participants (N=1) were illiterate, 20% participants (N=4) were educated up to 10th, 40% participants (N=8) were educated up to 12th, 15% participants (N=3) were Graduate, and 20% participants (N=4) were Post Graduate. On the other hand, in the Depressive group, 5% participants (N=1) were educated up to 10th, 45% participants (N=9) were educated up to 12th, 35% participants (N=7) were Graduate, and 15% participants (N=3) were Post Graduate. The two groups were compared on education qualification using Chi-square. The value obtained was not significant.

The Table 4 and Figure 4 show the distribution of Occupation in Manic and Depressive groups. In Manic group, 45% participants (N=9) were Farmers, 25% participants (N=5) were Professional, 5% participants (N=1) were Semi-Skilled, 10% participants (N=2) were student, and 15% participants (N=3) were unemployed. On the other hand, in Depressive group, 40% participants (N=8) were Farmers, 30% participants (N=6) were Professional, and 30% participants (N=6) were unemployed. Thus, majority of the participants in both the groups were involved in agriculture. The two groups were compared on Occupation using Chi-square. The value obtained was not significant.

The Table 5 and Figure 5 shows the distribution of Background in Manic and Depressive groups. In the Manic group, 45% participants (N=9) belonged to a Rural Background and 55% participants (N=11) belonged to an Urban Background. In the Depressive group, 20% participants (N=4) belonged to a Rural Background and 80% participants (N=16) belonged to an Urban Background. Thus, majority of the participants in both groups came from an Urban Background. The two groups were compared on Rural/Urban background using Chi-square. The value obtained was not significant.

The Table 6 and Figure 6 shows the distribution of Family Type in Manic and Depressive groups. In the Manic group, 25% participants (N=5) belonged to a Joint Family and 75% participants (N=15) belonged to a Nuclear Family. In the Depressive group, 15% participants (N=3) belonged to a Joint Family and 85% participants (N=17) belonged to a Nuclear Family. Thus, majority of the participants in both groups came from a Nuclear Family. The two groups were compared on Family Type using Chi-square. The value obtained was not significant.

The Table 7 and Figure 7 shows the distribution of Socio-Economic Status in Manic and Depressive groups. In the Manic group, 10% participants (N=2) belonged to Lower Socio-Economic Status, 30% participants (N=6) belonged to Lower Middle Socio-Economic Status, 35% participants (N=7) belonged to Upper Socio-Economic Status and 25% participants (N=5) belonged to Upper Middle Socio-Economic Status. On the other hand, in the Depressive group, 10% participants (N=2) belonged to Lower Middle Socio-Economic Status, 35% participants (N=7) belonged to Upper Socio-Economic Status and 55% participants (N=11) belonged to Upper Middle Socio-Economic Status. Thus, majority of the participants in both the groups belonged to Upper and Upper Middle Socio-Economic Status. The two groups were compared on Socio-Economic Status using Chi-square. The value obtained was not significant.

The Table 8 and Figure 8 shows the distribution of Pre and Post intervention scores on Young's Mania Rating Scale in Manic patients which measures the severity of Manic symptoms. The mean pre intervention on Young's Mania Rating Scale was 31.15 with standard deviation of 8.07. The mean post intervention on Young's Mania Rating Scale was 4.95 with standard deviation of 2.95 which indicates there was significant improvement (decreased score) in severity of manic symptoms post intervention.

The Table 9 and Figure 9 shows the distribution of Pre and Post intervention scores on Hamilton Depression Rating Scale in Depressive patients which measures the severity of depressive symptoms. The mean pre intervention on Hamilton Depression Rating Scale was 27.20 with standard deviation of 5.80. The mean post intervention on Hamilton Depression Rating Scale was 8.45 with standard deviation of 4.41 which indicates there was significant improvement (decreased score) in severity of depressive symptoms post intervention.

The Table 10 and Figure 10 shows the distribution of Pre and Post Intervention scores on Social Skill Inventory for evaluating social skills deficits in Manic Phase. The Pre and Post Mean scores were compared using student t-test. The difference between the pre and post scores on Emotional Expressivity, Emotional Sensitivity, Emotional Control, Social Expressivity, Social Sensitivity, Social Control, Total Emotional, Total Social, Expressivity and Control in Manic Phase was significant at 0.01 levels. This indicates that the Social Cognition and Interaction Training proved effective in enhancing Social Skills Deficit. It proved effective in improving Emotional Expressivity, Emotional Sensitivity, Emotional Control, Social Expressivity, Social Sensitivity, Social Control, Total Emotional, Total Social, Expressivity and Control in the Manic phase patients. The intervention had no effect on sensitivity as social skill in the Manic phase patients.

The Table 11 and Figure 11 shows distribution of Pre and Post Intervention Scores on Social Skills Inventory total Social Skill Index in Manic phase. The Pre and Post mean scores were compared using student t-test. The difference between the pre and post scores on Social Skill Index was significant at 0.01 level. This indicates that the Social Cognition and Interaction Training proved effective in improving Social Skills Deficit in Manic phase patients.

The Table 12 and Figure 12 show distribution of Pre and Post scores on Family Emotional Involvement and Criticism Scale for Expressed Emotions in Manic phase. The Pre and Post mean scores were compared using the student t-test. The difference between the pre and post scores on Emotional Over Involvement and Perceived Criticism in Manic patients was significant at 0.01 level. This indicates the Family Focused Therapy proved effective in improving the impact of Expressed Emotions of the patient.

The Table 13 and Figure 13 show the distribution of Pre and Post Intervention scores on Social Skill Inventory for evaluating social skills deficit in Depressive Phase. The Pre and Post Mean scores were compared using student t-test. The difference between the Pre and Post scores on Emotional Expressivity as social skill was significant at 0.01 level. This indicates that the Social Cognition and Interaction Training proved effective in enhancing Emotional Expressivity as Social Skill in Depressive phase. The intervention had no effect on Emotional Sensitivity, Emotional Control, Social Expressivity, Social Sensitivity, Social Control, Total Emotional, Total Social, Expressivity, Sensitivity and Control as social skill in the depressive phase patients.

The Table 14 and Figure 14 shows distribution of Pre and Post Intervention Scores on Social Skills Inventory total Social Skill Index in Depressive phase. The Pre and Post mean scores were compared using student t-test. The difference between the pre and post scores on Social Skill Index was significant at 0.01 level. This indicates that the Social Cognition and Interaction Training proved effective in improving Social Skills Deficit in Depressive phase patients.

The Table 15 and Figure 15 show distribution of Pre and Post scores on Family Emotional Involvement and Criticism Scale for Expressed Emotions in Depressive phase. The Pre and Post mean scores were compared using the student t-test. The difference between the pre and post scores on Emotional Over Involvement and Perceived Criticism in Depressive phase patients was significant at 0.01 level. This indicates

the Family Focused Therapy proved effective in improving the effect of Expressed Emotions in depressive phase patients.

Thus, the Social Cognition and Interaction Training proved effective in reducing Social Skill Deficit and Family Focused Therapy in improving the impact of Expressed Emotions in patients with Bipolar Affective Disorder across Manic and Depressive Phase.

The Table 16 and Figure16 show comparison of Pre and Post intervention scores on Emotional Expressivity (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Emotional Expressivity were 39.90 and 47.20 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Emotional Expressivity were 50.30 and 53.05 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Emotional Expressivity between the two phases. The values obtained were not significant. This indicates that even though both the groups showed increase in Emotional Expressivity post the intervention, there was no significant inter group difference. Thus, both the phases improved similarly in the use of Emotional Expressivity.

The Table 17 and Figure 17 show comparison of Pre and Post intervention scores on Emotional Sensitivity (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Emotional Sensitivity were 37.85 and 40.90 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Emotional Sensitivity were 48.30 and 47.45 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Emotional Sensitivity between the two phases. The values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant decline was seen in the use of Emotional Sensitivity as social skill in both the phases. However, there was no significant inter group difference post intervention.

The Table 18and Figure 18 shows comparison of Pre and Post intervention scores on Emotional Control (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Emotional Control were 34.30 and 39.55 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Emotional Control were 40.25 and 39.00 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Emotional Control between the two phases. The values obtained were not significant. This indicates that even though both the groups showed increase in Emotional Control post the intervention, there was no significant inter group difference. Thus, both the phases improved similarly in the use of Emotional Control.

The Table 19 and Figure 19 show comparison of Pre and Post intervention scores on Social Expressivity (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Social Expressivity were 32.00 and 45.00 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Social Expressivity were 48.05 and 50.65 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Social Expressivity between the two phases. The values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of Social Expressivity as social skill in both the phases. However, there was no significant inter group difference post intervention.

The Table 20 and Figure 20 show comparison of Pre and Post intervention scores on Social Sensitivity (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Social Sensitivity were 44.40 and 38.15 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Social Sensitivity were 38.00 and 39.20 for Manic and Depressive

Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Social Sensitivity between the two phases. The values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant decline was seen in the use of Social Sensitivity as social skill in Manic phase patients. However, there was significant inter group difference post intervention indicating that Manic Phase patients showed significant improvement in Social Sensitivity post intervention in comparison to Depressive phase patients.

The Table 21 and Figure 21 show comparison of Pre and Post intervention scores on Social Control (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Social Control were 46.20 and 55.20 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Social Control were 57.05 and 58.85 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Social Control between the two phases. The values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of Social Control as social skill in both the phases. However, there was no significant inter group difference post intervention.

The Table 22 and Figure 22 show comparison of Pre and Post intervention scores on Total Emotional (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Emotional were 111.05 and 127.65 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Emotional were 138.85 and 139.50 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Emotional between the two phases. The values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of Emotional as social

skill in both the phases. However, there was no significant inter group difference post intervention. Thus, both the phase's patients improved similarly in the use of Emotional as social skill post intervention.

The Table 23 and Figure 23 shows comparison of Pre and Post intervention scores on Social (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Social were 122.30 and 138.35 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Social were 143.10 and 148.70 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Social between the two phases. The values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of Social as social skill in both the phases. However, there was no significant inter group difference post intervention. Thus, both the phase's patients improved similarly in the use of Social as social skill post intervention.

The Table 24 and Figure 24 show comparison of Pre and Post intervention scores on Expressivity (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Expressivity were 71.90 and 92.20 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Expressivity were 98.35 and 103.70 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Expressivity between the two phases. The values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of Expressivity as social skill in both the phases. However, there was no significant inter group difference post intervention. Thus, both the phase's patients improved similarly in the use of Expressivity as social skill post intervention.

The Table 25 and Figure 25 shows comparison of Pre and Post intervention scores on Sensitivity (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Sensitivity were 82.25 and 79.05 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Sensitivity were 86.30 and 86.65 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Sensitivity between the two phases. The values obtained were not significant. This indicates that even though both the groups showed enhancement in Sensitivity post the intervention, there was no significant inter group difference. Thus, both the phases improved similarly in the use of Sensitivity.

The Table 26 and Figure 26 show comparison of Pre and Post intervention scores on Control (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Control were 80.20 and 94.80 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Control were 97.30 and 97.85 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Control between the two phases. The values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of Control as social skill in Manic phase patients. However, there was significant inter group difference post intervention indicating that Manic Phase patients showed significant improvement in Control as social skill post intervention in comparison to Depressive phase patients.

The Table 27 and Figure 27 show comparison of Pre and Post intervention scores on Social Skill Index (Social Skill) in Manic and Depressive phase patients. The mean pre intervention scores on Social Skill Index were 234.35 and 266.00 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Social Skill Index were 281.95 and 288.20 for Manic and Depressive

Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Social Skill Index between the two phases. The values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of overall total social skills in both the phases. However, there was no significant inter group difference post intervention. Thus, both the phase's patients improved similarly in the use of total social skills post intervention.

The Table 28 and Figure 28 show comparison of Pre and Post intervention scores on Emotional Over Involvement (Expressed Emotion) in Manic and Depressive phase patients. The mean pre intervention scores on Emotional Over Involvement were 17.55 and 21.95 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Emotional Over Involvement were 11.45 and 7.05 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Emotional Over Involvement between the two phases. The values obtained were significant for post intervention but not significant for pre intervention. Post the Family Focused Therapy, a significant decline was seen in the use of Emotional Over Involvement as Expressed Emotion in both the phases. However, there was significant inter group difference post intervention. This indicates that depressive phase patient showed significant decline in use of emotional over involvement as compared to manic phase patients.

The Table 29 and Figure 29 show comparison of Pre and Post intervention scores on Perceived Criticism (Expressed Emotion) in Manic and Depressive phase patients. The mean pre intervention scores on Perceived Criticism were 16.20 and 17.40 for Manic and Depressive Phase patients respectively. The mean post intervention scores on Perceived Criticism were 12.70 and 9.80 for Manic and Depressive Phase patients respectively. Mann-Whitney Test was used to compare the pre and post intervention scores on Perceived Criticism

between the two phases. The values obtained were significant for post intervention but not significant for pre intervention. Post Family Focused Therapy, a significant decline was seen in the use of Perceived Criticism as Expressed Emotion in both the phases. However, there was significant inter group difference post intervention. Thus, this indicates that depressive patients showed decline in Perceived Criticism as Expressed Emotion in comparison to manic phase patients.

Thus, on the basis of the results discussed above, use of Social Cognition Interaction Training and Family Focused Therapy showed positive results in terms of many domains of Social Skills and Expressed Emotions in patients with Bipolar Affective Disorder across Manic and Depressive phases. Patients in both the phases were observed to improve similarly post the Interventions.

DISCUSSION

The current study was conducted to study the effect of Social Cognition and Interaction Training on Social Skills Deficit and Family Focused Therapy on Expressed Emotions in patients with Bipolar Affective Disorder. The study was conducted in the department of Psychiatry, Dayanand Medical College and Hospital, Ludhiana on 40 participants diagnosed with Bipolar Affective Disorder (20 in manic phase and 20 in depressive phase) as per ICD-10 criteria between the age range of 18 to 55 years. Purposive sampling was used for the selection of the participants. Socio-demographic profile of the subjects was taken. The subjects were initially assessed on Hamilton Depression Rating Scale for assessing severity of depressive symptoms, Young's Mania Rating Scale for assessing severity of manic symptoms, Family Emotional Involvement and Perceived Criticism Scale to assess the expressed emotions and Social Skill Inventory to assess the social skills deficit. 6 sessions of Family Focused Therapy and 7 Individual sessions of Social Cognition Interaction Training ranging approximately for an hour were carried out with the participants. Post the intervention, they were reassessed on the above-mentioned measures for severity of symptomology, expressed emotions and social skills deficit. The data thus collected was tabulated and then analyzed using SPSS. The results have been discussed in below light of prevailing research evidence.

SOCIO DEMOGRAPHIC VARIABLE

Data was described in terms of age, gender, education, occupation, background, family type and socio-economic status.

AGE

The study was conducted on adult participants from age group of 18-55 years. The youngest Participant was 19 years old, and the oldest participant was 51 years old. The Mean age for manic group was 34.70 years and that for Depressive group was 34.70 years. The mean age of

the groups was compared using the student t-test and the value obtained was not statistically significant. Thus, the groups were homogenous on the basis of distribution of age.

Similar findings in terms of age distribution were found in studies by Angst et. al.(1998) [94] Frank Bellivier et. al. (2003) [95], Ramdurg and Kumar et. al.(2013) [96]

GENDER

The study was not restricted in terms of gender. However, the picture is dominated by the male patients. 75% of the patients were males in manic phase and 25% were females whereas 70% of the patients were males in Depressive phase and 30% were females. Similar Gender trends have been found in the study conducted by Ram Murthy et. al (2014) [97] where the majority of the participants were males (225 males and 194 females). According to Pillai et. al (2021) [98], most of the hospital-based Indian Studies conducted on BAD found that the male patients outnumbered female patients.

EDUCATION

In Manic group, 5% participants were illiterate, 20% participants were educated up to 10th, 40% participants were educated up to 12th, 15% participants were Graduate, and 20% participants were Post Graduate. On the other hand, in the Depressive group, 5% participants were educated up to 10th, 45% participants were educated up to 12th, 35% participants were Graduate, and 15% participants were Post Graduate. The majority of participants in both the groups were educated up to 12th for which similar findings were reported in Indian population regarding education of BAD patients were reported by Maji et. al (2012)[99]. The difference between the education of the participants in manic phase and Depressive phase was by chance.

OCCUPATION

In Manic group, 45% participants were Farmers, 25% participants were Professional, 5% participants were Semi-Skilled, 10% participants were student, and 15% participants were unemployed. On the other hand, in Depressive group, 40% participants were Farmers, 30% participants were Professional, and 30% participants were unemployed. Thus, majority of the participants in both the groups were involved in agriculture. This is supported by the literature given by Ghosh et. al (2020)[100]. The difference between occupations of participants in both the groups was by chance.

BACKGROUND

In our study, in the manic group, 45% participants belonged to a Rural Background and 55% participants belonged to an Urban Background. In the Depressive group, 20% participants belonged to a Rural Background and 80% participants belonged to an Urban Background. Thus, majority of the participants in both groups came from an Urban Background. Since the present study was conducted in the tertiary care hospital, which carters largely to the urban population, the pre-ponderance of more subjects from locality is understandable. Similar findings regarding background of BAD patients were reported by Pattanshetti et al., (2016)[101]. The difference between the backgrounds of participants of both groups was by chance.

FAMILY TYPE

In the Manic group, 25% participants belonged to a Joint Family and 75% participants belonged to a Nuclear Family. In the Depressive group, 15% participants belonged to a Joint Family and 85% participants belonged to a Nuclear Family. Thus, majority of the participants in both groups came from a Nuclear Family. The is similar to the findings reported by Gania et al., (2019)[102]. The difference between the family types of participants of both the groups was by chance.

SOCIO-ECONOMIC STATUS

The participants belonged to the diverse socioeconomic status. In the Manic group, 10% participants belonged to Lower Socio-Economic Status, 30% participants belonged to Lower Middle Socio-Economic Status, 35% participants belonged to Upper Socio-Economic Status and 25% participants belonged to Upper Middle Socio-Economic Status. On the other hand, in the Depressive group, 10% participants belonged to Lower Middle Socio-Economic Status, 35% participants belonged to Upper Socio-Economic Status and 55% participants belonged to Upper Middle Socio-Economic Status. Thus, majority of the participants in both the groups belonged to Upper and Upper Middle Socio-Economic Status. The difference between the socioeconomic statuses of the participants in both the groups was by chance.

The findings could be corroborated with the literature given by Gania et al., (2019)[102]. and Manhas et. al. (2019)[103].

EFFICACY OF SOCIAL COGNITION INTERACTION TRAINING AND FAMILY FOCUSED THERAPY IN BIPOLAR AFFECTIVE DISORDER

- The current study aimed to study the pre and post effect of Social Cognition and Interaction Training on Social Skills Deficit in patients diagnosed with BAD across Manic and Depressive phase.
- The current study aimed study the pre and post effect of Family Focused Therapy on Expressed Emotions in patients diagnosed with BAD across Manic and Depressive phase.
- The current research aimed to compare the pre and post effect of Social Cognition and Interaction training on Social Skill Deficit and Family Focused Therapy on Expressed Emotion amongst the patients diagnosed with Bipolar Affective Disorder in Manic and Depressive phase.

SOCIAL SKILLS DEFICITS

The first objective of the study was to evaluate the effect of Social Cognition Interaction Training on Social Skills deficit in patients diagnosed with BAD across Manic and Depressive Phase. The participants were assessed on Social Skills domains: Emotional Expressivity, Emotional Sensitivity, Emotional Control, Social Expressivity, Social Sensitivity, Social Control, Total Emotional, Total Social, Expressivity, Sensitivity, Control and Social Skill Index.

EMOTIONAL EXPRESSIVITY

In the Manic Phase, pre and post intervention scores on Emotional Expressivity were 39.90 and 50.30 respectively. This increase in Emotional Expressivity scores was significant at 0.01 level. This indicates that there was substantial increase in the effective use of Emotional Expressivity as a Social Skill for participants in the Manic Phase, post the Social Cognition and Interaction Training intervention.

In the Depressive Phase, pre and post intervention scores on Emotional Expressivity were 47.20 and 53.05 respectively. This increase in Emotional Expressivity scores was significant at 0.01 level. This indicates that there was a substantial increase in the effective use of Emotional Expressivity as a Social Skill for participants in the Depressive phase, post the SCIT intervention.

The Pre and Post intervention scores on Emotional Expressivity in Manic and Depressive phase were compared using Mann-Whitney test. The values obtained were not significant. This indicates that even though both the groups showed increase in Emotional Expressivity post the intervention, there was no significant inter group difference. Thus, both the phases improved similarly in the use of Emotional Expressivity. This indicates their enhanced ability to accurately express felt emotional states. It also reflects that they are able to arouse or inspire others from their ability to transmit feelings.

Use of SCIT as a means of improving Social Skill has been supported by previous literature given by Lahera et. al. (2013[104], Baez et. al (2013)[105], Hoertnagl and Hofer et. al (2014)[106], and Roberts et. al (2015)[65]. There has not been much literature on the effect of SCIT on specific Social Skill domain of Emotional Expressivity and the current study's findings add to this gap in literature.

EMOTIONAL SENSITIVITY

In the Manic group, pre and post intervention scores on Emotional Sensitivity were 37.85 and 48.30 respectively. This increase in emotional sensitivity scores was significant at 0.01 level. This indicates there was considerable increase in the use of Emotional Sensitivity as a social skill for participants in the manic group post the SCIT intervention. It reflects that post intervention the manic patients were susceptible to becoming emotionally aroused by others, empathically experiencing their emotional states.

In the Depressive group, pre and post interventions scores on Emotional Sensitivity were 40.90 and 47.45. This increase in Emotional Sensitivity wasn't significant. This indicates that there was not a substantial increase in use of Emotional Sensitivity as a social skill for participants in the Depressive Group, post the SCIT intervention.

The pre and post intervention scores on Emotional Sensitivity in Manic and Depressive groups were compared using Mann-Whitney Test. The values obtained were significant for pre intervention but not significant for post intervention. This indicates that before the SCIT intervention, participants were more showing significant deficit in Emotional Sensitivity as a social skill. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of Emotional Sensitivity as a social skill. However, there was no significant inter group difference in the increase in the use of Emotional Sensitivity as a social skill post intervention.

The current findings support literature given by Roberts et. al. (2015)[65]. In use of SCIT in improving empathetic approach and sensitivity towards others. One of the core components of SCIT – understanding the perception of others and working on theory of mind of Bipolar patients. However, there is dearth of literature on use of SCIT specifically for Emotional Sensitivity. Thus, the current study's findings add to this gap in literature.

EMOTIONAL CONTROL

In the Manic group, pre and post intervention scores on Emotional Control were 34.30 and 40.25 respectively. This increase in Emotional Control was significant at 0.01 level. This indicates that post SCIT intervention the manic phase patients tend to have significant improvement in control against the display of felt emotions.

In Depressive group, pre and post intervention scores on Emotional Control were 39.55 and 39.00. This decrease in scores on Emotional Control was not significant. This indicates that there was no substantial difference in the use of Emotional Control in Depressive group, post the SCIT intervention. This indicates that patients have ability to control and regulate one's own emotional and nonverbal displays. It shows the ability to convey particular emotion on cues and to hide feelings behind an assumed "mask" such as putting on a cheerful face to cover sorrow.

The pre and post intervention scores on Emotional Control were compared using Mann-Whitney Test. The values obtained were not significant. This indicates that even though both the groups showed improvement in Emotional Control post the intervention, there was no significant inter group difference. Thus, both the phases improved similarly in the use of Emotional Control.

The current findings support literature given by Roberts et. al. (2015) [65], Vaskinn, et. al. (2017)[107]. and Niewnow et. al. (2019)[108]. However, there is dearth of literature on use of SCIT specifically for Emotional Control. Thus, the current study's findings add to this gap in literature.

SOCIAL EXPRESSIVITY

In the Manic phase, pre and post intervention scores on Social Expressivity were 32.00 and 48.05 respectively. This increase in Social Expressivity scores was significant at 0.01 level. This shows that post SCIT intervention the manic patients showed improvement in verbal expression and their ability to engage others in social discourse.

In Depressive phase, pre and post intervention scores on Social Expressivity were 45.00 and 50.65 respectively. This increase in Social Expressivity scores was not significant. This reflects that there was no significant change in Social Expressivity in depressive patients post SCIT intervention.

The pre and post intervention scores on Social Expressivity in Manic and Depressive group were compared using Mann-Whitney Test which shows the values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of Social Expressivity as social skill as deficit could be seen in pre intervention scores. However, there was no significant inter group difference post intervention.

The current findings support literature given by Samamé et. al.[109], Lahera et. al (2012)[70]. and Vlad et. al (2018)[110]. However, there is dearth of literature on use of SCIT specifically for Social Expressivity. Thus, the current study's findings add to this gap in literature.

SOCIAL SENSITIVITY

In the Manic group, pre and post intervention scores on Social Sensitivity were 44.40 and 38.00 respectively. This decline in Social Sensitivity scores was significant at 0.01 levels. This indicates that there was significant improvement post SCIT intervention on Social Sensitivity as it assesses the ability to interpret the verbal communication of others and individual's sensitivity to understanding the norms of governing appropriate social behaviors. This indicates

there was improvement in social interaction as they were conscious and aware of the appropriateness of their own actions.

In Depressive group, pre and post intervention scores on Social Sensitivity were 38.15 and 39.20 respectively which were not significant. This reflects and correlates to the studies related to depression as it affects the social support system of the patients. As a result, they become more conscious and inhibit participation in social interaction. It might also prolong their recovery time and aggravate their symptoms.

The pre and post intervention scores on Social Sensitivity in Manic and Depressive phase patients were compared using Mann-Whitney Test. The values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of Social Sensitivity as Social Skill in Manic phase patients. However, there was significant inter group difference post intervention indicating that Manic Phase patients showed significant improvement in Social Sensitivity post intervention in comparison to Depressive phase patients.

The current findings support literature given by Roberts et. al (2015)[65] and Espinós et. al (2021)[111]. However, there is dearth of literature on use of SCIT specifically for Social Sensitivity. Thus, the current study's findings add to this gap in literature.

SOCIAL CONTROL

In the Manic group, pre and post intervention scores on Social Control were 46.20 and 57.05 respectively. This increase in Social Control scores was significant at 0.01 level. This indicates that post SCIT intervention, the patients showed improvement ability to know how to act in variety of social situations.

In the Depressive group, pre and post intervention scores on Social Control were 55.20 and 58.85 respectively. This increase in Social Control scores was not significant. This indicates that there was no significant improvement in Social Control post SCIT intervention for the depressive patients.

The pre and post intervention scores on Social Control were compared using Mann-Whitney Test. The values obtained were significant for pre intervention but not significant for post intervention. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of Social Control as social skill in a regulated manner. However, there was no significant inter group difference post intervention.

The current findings support literature given by Fernandes and Roberts et. al (2014)[112], Christiani et. al (2019)[113] and Rotenberg et. al. (2019)[114]. However, there has not been much literature on use of SCIT specifically for Social Control. Thus, the current study's findings add to this gap in literature.

SOCIAL SKILL INDEX

We found significant difference between the Total SSI performance scores on both the groups. The mean of SSI scores of Manic patients, pre and post intervention were 234.35 and 281.95 respectively and for Depressive group pre and post intervention scores were 266.00 and 288.20 respectively. The values obtained were significant at 0.01 level for both the groups. The low scores initially indicate social skills deficit in these groups which is in tune with the findings of Miller et. al (2021) [115]. Mann-Whitney Test was used to compare the pre and post intervention scores on Social Skill Index between the two phases. The values obtained were significant for pre intervention but not significant for post intervention which indicates that there was significant deficit before the intervention which improved substantially post intervention. Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of overall total social skills in both

the phases. However, there was no significant inter group difference post intervention.

In social situations, the ability to accurately infer the emotions of others, to identify and anticipate their reactions and intentions is extremely important, as it indicative of their inner thoughts and feelings. Depression affects the social support system of patients. As a result, patients would face more stress and might prolong recovery time. Overly excessive expressive behavior in Mania can leave negative impression on others the emotional explosion in individuals with mania affects their interpersonal relationship.

Thereby, the Social Cognition and Interaction training in our current study seemed to target on Emotional Domain and Social Domain of Social Skills. In the Manic group, pre and post intervention scores on Emotional domain were 111.05 and 138.85 respectively. This increase in Emotional Domain as social skill was significant at 0.01 level. This indicates the emotional subscale which can be thought of as three "emotional skills" which capture some of the core components of emotional intelligence as identified in the Mayer and Salovey (1997)[116] ability model was significantly improved for Manic phase patients post SCIT intervention.

In the Depressive group, pre and post intervention scores on Emotional domain were 127.65 and 139.50 respectively. This increase in Emotional Domain was not significant statistically.

The pre and post intervention scores on Emotional Domain in Manic and Depressive group were compared using Mann-Whitney. The values obtained were significant for pre intervention but not significant for post intervention. This indicates that Post the Social Cognition and Interaction Training, a significant improvement was seen in the use of Emotional as Social Skill. However, there was no significant inter group difference post intervention.

The current findings support literature given by, Lahera et. al (2013) [104], Roberts et. al (2015) [65], Zhang et. al (2016)[81] , Lavi-Rotenberg et.al (2023)[117] and Tabas et. al (2023)[118] . However, there is dearth of literature on Use of Social Cognition and Interaction training on Social Skills in Indian context as the social dynamics vary from culture to culture. Thus, the current study's findings add to this gap in the literature.

EXPRESSED EMOTIONS

The second objective of the current study was to evaluate the pre and post effect of Family Focused Therapy on Expressed Emotions in patients diagnosed with BAD across Manic and Depressive phase. The participants were assessed on Expressed Emotions subscales: emotional over involvement and perceived criticism.

EMOTIONAL OVER INVOLVEMENT

In the Manic group, pre and post intervention scores on Emotional Over Involvement were 17.55 and11.45 respectively. This decrease in Emotional over Involvement was significant at 0.01 level.

In the Depressive group, pre and post intervention scores on Emotional over Involvement were 21.95 and 7.05 respectively. This decrease in Emotional Over involvement was also significant 0.01 level.

Emotional over Involvement was highly expressed emotion among both the groups. The post intervention scores indicate there was substantial decline in the experience of Emotional Over Involvement as expressed emotion in both the participants after the Family Focused Therapy. Decrease in EOI was also one of the main implications of the present study.

The pre and post intervention scores on Emotional over Involvement in Manic and Depressive Phase were compared using Mann-Whitney Test. The values obtained were significant for post intervention but not significant for pre intervention. Post the Family Focused Therapy, a significant decline was seen in the use of Emotional over Involvement

as Expressed Emotion in both the phases. However, there was significant inter group difference post intervention. This indicates that depressive phase patient showed significant decline in use of emotional over involvement as compared to manic phase patients post the FFT intervention.

The current findings are supported by Kim et. al (2004)[84], Miklowitz et. al 2007[119] Parija et. al (2018)[76], Alibeigi and Momeni et al. (2018)[120] and Sharma et. al (2021)[78].

PERCEIVED CRITICISM

In the Manic group, pre and post intervention score on Perceived Criticism were 16.20 and 12.70 respectively. This decrease in Perceived Criticism was significant at 0.01 levels.

In the Depressive group, pre and post intervention scores on Perceived Criticism were 17.40 and 9.80 respectively. This decrease in Perceived Criticism was significant at 0.01 level.

This indicates that there was substantial decline in impact of Perceived Criticism as expressed emotion in both the groups, post the Family Focused Therapy.

The pre and post intervention scores on Perceived Criticism were compared using Mann-Whitney Test and the values obtained were significant for post intervention but not significant for pre intervention. Post Family Focused Therapy, a significant decline was seen in the use of Perceived Criticism as Expressed Emotion in both the phases. However, there was significant inter group difference post intervention. Thus, this indicates that depressive patients showed greater improvement in decline of Perceived Criticism as Expressed Emotion in comparison to manic phase patients.

As the Family Focused Therapy is manualized approach aims to promote healthy relationship and addresses expressed emotions of the caregivers in order to promote over all well-being, better social relationship and decreased relapse rates. As perceived criticism has

been highly correlated with relapse rates in Bipolar Affective Disorder patients as evident from study conducted by Cuellar et. al (2009) [75]. The current findings support the literature given by Hogarty, (1986)[88], Dore and Romans, (2001)[2], Kim et. al 2004[84], Miklowitz et.al(2007) [119], Maji et al., (2012)[99],Miklowitz and Chung, 2016[121], Alibeigi and Momeni et.al(2018)[120], Padmavathi et al., 2021[122] , Lex et al., 2022 [123], and Tabas et. al (2023)[89]

Thus, on the basis of the results discussed above, use of Social Cognition Interaction Training and Family Focused Therapy showed positive results in terms of many domains of Social Skills and Expressed Emotions in patients with Bipolar Affective Disorder across manic and depressive phases. The findings were supported by the previous literature. Patients in both the phases were observed to improved similarly post the Interventions. The study also filled in gaps in research showing the effect of Social Cognition and Interaction Training on specific domains of Social Skill across phases of Bipolar Affective Disorder in terms of Emotional Expressivity, Emotional Control, Emotional Sensitivity, Social Expressivity, Social Sensitivity and Social Control. Family Focused Therapy was observed to have improvement in both the Manic and Depressive patients in regulating the impact of Expressed Emotions. Thus, the use of Social Cognition and Interaction Training and Family Focused Therapy showed promising results as a therapeutic intervention in the field of Bipolar Affective Disorders in Punjab.

LIMITATIONS

1. The sample size of the study was small.
2. The study was not representative of the population in the terms of Gender.
3. The sample was limited in terms of educational qualification and age group. Bipolar Affective Disorder are found among illiterates, adolescents and elderly as well.
4. The study could have included participants with hypomanic phase and remission phase for a more detailed finding for the performance between the different groups.
5. The current study was a hospital-based study in a tertiary care hospital in Urban region of Punjab. This might limit the generalizability of the study to the Indian Population.
6. Use, Modification and Generalization of a Western model of therapies-Social cognition and Interaction Training and Family-Focused Therapy on a predominantly Punjabi population has its own challenges.

SUMMARY AND CONCLUSION

The current study was conducted to study the effect of Social Cognition and Interaction Training on Social Skills Deficit and Family Focused Therapy on Expressed Emotions in patients with Bipolar Affective Disorder. The study was conducted in the department of Psychiatry, Dayanand Medical College and Hospital, Ludhiana on 40 participants diagnosed with Bipolar Affective Disorder (20 in manic phase and 20 in depressive phase) as per ICD-10 criteria between the age range of 18 to 55 years. Purposive sampling was used for the selection of the participants. Socio-demographic profile of the subjects was taken. The subjects were initially assessed on Hamilton Depression Rating Scale for assessing severity of depressive symptoms, Young's Mania Rating Scale for assessing severity of manic symptoms, Family Emotional Involvement and Perceived Criticism Scale to assess the expressed emotions and Social Skill Inventory to assess the social skills deficit. 6 sessions of Family Focused Therapy and 7 Individual sessions of Social Cognition Interaction Training ranging approximately for an hour were carried out with the participants. Post the intervention, they were reassessed on the above-mentioned measures for severity of symptomology, expressed emotions and social skills deficit. The data thus collected was tabulated and then analyzed using SPSS. The results obtained were discussed in 5355light of existing research evidence.

The data was analyzed, and following conclusions were noted in the current study:

- The mean age for both Manic and Depressive group was 34.70 years.
- Majority of participants across both phases were Males N=29 and females were 11.
- Majority of the participants in Manic group (40%) and Depressive group (45%) were educated up to 12thgrade.

- Majority of the participants in both the groups were farmers (45% in Manic group and 40% in Depressive group).
- Majority of participants in both the groups belonged to Urban Background (55% in Manic group and 80% in Depressive group).
- Majority of participants in both the groups belonged to Nuclear Family (75% in Manic group and 85% in Depressive group).
- Majority of participants in Manic group belonged to Upper Socio-Economic Status (35%) and Lower Middle Socio-Economic status (25%). Majority of the participants in Depressive group belonged to an Upper Middle Socio-Economic Status (55%).
- There was significant decrease in mean scores of Young's Mania Rating Scale post the SCIT and FFT intervention in Manic group (31.15 to 4.95).
- There was significant decrease in mean scores of Hamilton Depression Rating Scale post the SCIT and FFT intervention in Depressive group (27.20 to 8.45).
- There was significant increase in mean scores of Emotional Expressivity (Social Skill) post the SCIT intervention in Manic (39.90 to 50.30) and Depressive (47.20 to 53.05).
- There was significant increase in mean scores of Emotional Sensitivity (Social Skill) post the SCIT intervention in Manic (37.85 to 48.30) and Depressive (40.90 to 47.45).
- There was significant increase in mean scores of Emotional Control (Social Skill) post the SCIT intervention in Manic (34.30 to 40.25). There was no significant effect of SCIT on Emotional Control in Depressive group.
- There was significant increase in mean scores of Social Expressivity (Social Skill) post the SCIT intervention in Manic (32.00 to 48.05) and Depressive (45.00 to 50.65).

- There was significant improvement in mean scores of Social Sensitivity (Social Skill) post the SCIT intervention in Manic (44.40 to 38.00) and Depressive (38.15 to 39.20).
- There was significant increase in mean scores of Social Control (Social Skill) post the SCIT intervention in Manic (46.20 to 57.05) and Depressive (55.20 to 58.85).
- There was significant improvement in Social Skill effective use post SCIT in intervention in both the groups.
- There was significant decline in mean scores of Emotional Over Involvement (Expressed Emotion) post the FFT intervention in Manic (17.55 to 11.45) and Depressive (21.95 to 7.05).
- There was significant decline in mean scores of Perceived Criticism (Expressed Emotion) post the FFT intervention in Manic (16.20 o 12.70) and Depressive (17.40 to 9.80).
- SCIT showed positive effectiveness in improving Emotional Expressivity, Emotional Sensitivity, Emotional Control, Social Expressivity, Social Sensitivity, Social Control, Total Emotional, Total Social, Expressivity and Control in the Manic phase patients. The intervention had no effect on sensitivity as social skill in the Manic phase patients.
- SCIT proved effective in enhancing Emotional Expressivity as Social Skill in Depressive patients. The intervention had no significant effect on Emotional Sensitivity, Emotional Control, Social Expressivity, Social Sensitivity, Social Control, Total Emotional, Total Social, Expressivity, Sensitivity and Control as social skill in the depressive phase patients.
- FFT proved effective in addressing Expressed Emotions (Perceived Criticism and Emotional Over Involvement) in both Manic and Depressive groups.

To conclude, Social Cognition and Interaction Training showed positive results in terms of improving social skills deficits in patients with Bipolar Affective Disorder across Manic and Depressive groups. The study also filled in research gaps by showing the effect on specific domains of Social Skills especially in Indian Context: Emotional Expressivity, Emotional Sensitivity, Emotional Control, Social Expressivity, Social Sensitivity, Social Control, Total Emotional, Total Social, Expressivity, Sensitivity and Control. Also, Family Focused Therapy showed significant impact in addressing expressed emotions of the caregivers of the patients with Bipolar Affective Disorder across Manic and Depressive phase patients. The study filled in research gaps by showing effect on family dynamics specifically in Indian context especially Punjabi families. Thus, the use of SCIT and FFT showed promising results in the field of Bipolar Affective Disorder in Punjab. Future Interventions for Bipolar Affective Disorder patients could be planned on Social Cognition and Interaction Model and Family Focused Therapy Model.

FUTURE DIRECTIONS

The findings of the present study showed the effectiveness of Social Cognition and Interaction Training and Family Focused Therapy in Social Skills Deficit and Expressed Emotions in patients with Bipolar Affective Disorder across Manic and Depressive phase. Thus, future interventions can be planned as per the model. Further research on the effectiveness of SCIT and FFT on Punjabi population could be done with a bigger sample size and including patients from different age groups like adolescent and all education qualifications. Studies on use of SCIT and FFT on all phases prevalent of Bipolar Affective Disorder could be very useful in planning effective therapeutic intervention. Comparison studies in the Domain of Social Skill deficit in Urban and Rural area, comparison of efficacy of SCIT and FFT and other therapy models could yield beneficial results. Other variables like treatment adherence, genetic predisposition, social stigma regarding mental illness, co morbidities with other mental disorders could be incorporated into in-depth studies on Bipolar Affective Disorder in the region.

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S.NO.	AGE	SEX	MRD No.	EDUCATION	OCCUPATION	ADDRESS	FAMILY TYPE	SES	DIAGNOSIS	PHASE	HDRS (PRE)	HDRS (POST)	YMRS (PRE)
1	36	MALE	163164	12	FARMER	URBAN	NUCLEAR	LOWER MIDDLE	BAD	DEPRESSIVE	23	4	0
2	46	MALE	784802	12	FARMER	URBAN	NUCLEAR	UPPER MIDDLE	BAD	DEPRESSIVE	24	9	0
3	27	MALE	1506299	POST GRADUATE	PROFESSIONL	URBAN	NUCLEAR	UPPER	BAD	DEPRESSIVE	27	4	0
4	49	FEMALE	1501508	10	UNEMPLOYED	RURAL	JOINT	LOWER MIDDLE	BAD	DEPRESSIVE	40	5	0
5	38	MALE	835920	12	FARMER	URBAN	NUCLEAR	UPPER MIDDLE	BAD	DEPRESSIVE	31	9	0
6	23	MALE	1146492	GRADUATE	UNEMPLOYED	URBAN	NUCLEAR	UPPER	BAD	DEPRESSIVE	28	7	0
7	29	MALE	196895	GRADUATE	PROFESSIONL	URBAN	NUCLEAR	UPPER	BAD	DEPRESSIVE	21	3	0
8	31	FEMALE	1129998	12	UNEMPLOYED	URBAN	NUCLEAR	UPPER MIDDLE	BAD	DEPRESSIVE	35	8	0
9	39	FEMALE	1468864	12	UNEMPLOYED	URBAN	NUCLEAR	UPPER MIDDLE	BAD	DEPRESSIVE	25	8	0
10	29	FEMALE	1506299	POST GRADUATE	PROFESSIONL	URBAN	NUCLEAR	UPPER	BAD	DEPRESSIVE	30	10	0
11	33	MALE	323933	GRADUATE	PROFESSIONL	URBAN	NUCLEAR	UPPER	BAD	DEPRESSIVE	19	6	0
12	43	MALE	1579873	12	FARMER	RURAL	JOINT	UPPER MIDDLE	BAD	DEPRESSIVE	17	5	0
13	30	MALE	1577881	POST GRADUATE	PROFESSIONL	URBAN	NUCLEAR	UPPER	BAD	DEPRESSIVE	33	10	0
14	46	MALE	621986	GRADUATE	PROFESSIONL	URBAN	NUCLEAR	UPPER	BAD	DEPRESSIVE	33	8	0
15	23	FEMALE	1565947	GRADUATE	UNEMPLOYED	URBAN	NUCLEAR	UPPER MIDDLE	BAD	DEPRESSIVE	23	12	0
16	28	MALE	1578789	12	FARMER	RURAL	NUCLEAR	UPPER MIDDLE	BAD	DEPRESSIVE	26	9	0
17	46	MALE	1577839	12	FARMER	URBAN	NUCLEAR	UPPER MIDDLE	BAD	DEPRESSIVE	22	11	0
18	37	MALE	1570591	GRADUATE	FARMER	URBAN	NUCLEAR	UPPER MIDDLE	BAD	DEPRESSIVE	26	9	0
19	29	MALE	1578080	GRADUATE	FARMER	URBAN	NUCLEAR	UPPER MIDDLE	BAD	DEPRESSIVE	28	8	0
20	32	FEMALE	1129978	12	UNEMPLOYED	RURAL	JOINT	UPPER MIDDLE	BAD	DEPRESSIVE	33	24	0
21	29	FEMALE	1488612	12	UNEMPLOYED	URBAN	NUCLEAR	UPPER MIDDLE	BAD	MANIC	0	0	33
22	21	FEMALE	1493188	GRADUATE	PROFESSIONL	URBAN	NUCLEAR	UPPER MIDDLE	BAD	MANIC	0	0	22
23	36	MALE	1491528	10	FARMER	RURAL	JOINT	LOWER MIDDLE	BAD	MANIC	0	0	25
24	39	MALE	704311	10	FARMER	RURAL	JOINT	LOWER MIDDLE	BAD	MANIC	0	0	18
25	47	MALE	1491705	ILLITERTATE	SEMI-SKILLED	RURAL	NUCLEAR	LOWER	BAD	MANIC	0	0	39
26	26	MALE	94186	POST GRADUATE	PROFESSIONL	URBAN	NUCLEAR	UPPER	BAD	MANIC	0	0	21
27	34	MALE	1506100	12	FARMER	RURAL	NUCLEAR	LOWER MIDDLE	BAD	MANIC	0	0	41
28	48	MALE	1507803	12	FARMER	RURAL	NUCLEAR	LOWER MIDDLE	BAD	MANIC	0	0	29
29	29	MALE	889926	POST GRADUATE	PROFESSIONL	URBAN	NUCLEAR	UPPER	BAD	MANIC	0	0	30
30	41	MALE	480659	12	FARMER	RURAL	JOINT	UPPER MIDDLE	BAD	MANIC	0	0	37
31	37	MALE	1054768	GRADUATE	FARMER	URBAN	NUCLEAR	UPPER MIDDLE	BAD	MANIC	0	0	20
32	46	FEMALE	3757	12	UNEMPLOYED	URBAN	NUCLEAR	LOWER MIDDLE	BAD	MANIC	0	0	37
33	25	MALE	1249544	POST GRADUATE	PROFESSIONL	URBAN	NUCLEAR	UPPER	BAD	MANIC	0	0	38
34	24	MALE	1515351	12	STUDENT	URBAN	NUCLEAR	UPPER	BAD	MANIC	0	0	50
35	51	MALE	1512578	12	FARMER	RURAL	NUCLEAR	LOWER	BAD	MANIC	0	0	28
36	39	MALE	1517874	10	FARMER	RURAL	NUCLEAR	LOWER MIDDLE	BAD	MANIC	0	0	29
37	43	FEMALE	46818	GRADUATE	UNEMPLOYED	URBAN	NUCLEAR	UPPER	BAD	MANIC	0	0	31
38	33	MALE	579433	10	FARMER	RURAL	JOINT	UPPER MIDDLE	BAD	MANIC	0	0	26
39	27	MALE	552835	POST GRADUATE	PROFESSIONL	URBAN	JOINT	UPPER	BAD	MANIC	0	0	32
40	19	FEMALE	1525163	12	STUDENT	URBAN	NUCLEAR	UPPER	BAD	MANIC	0	0	37

S.NO.	AGE	YMRS (POST)	SOCIAL SKILL INVENTORY (PRE)																	
			EE	ES	EC	SE	SS	SC	TOTAL EMOTIONA	TOTAL SOCIAL	EXPRESSIVITY	SENSITIVITY	CONTROL	TOTAL SSI	EQUILLIBRIUM INDEX	EE	ES	EC	SE	SS	SC
1	36	0	60	54	37	62	35	65	151	162	122	89	103	313	45.937981	59	48	31	36	31	69
2	46	0	62	57	38	62	39	65	157	166	124	96	103	323	45.8166	32	28	37	18	54	30
3	27	0	55	38	39	61	29	55	132	145	116	67	94	277	45.603031	59	48	31	36	31	69
4	49	0	37	44	38	39	48	57	119	144	76	92	95	263	45.8768	55	48	42	56	51	53
5	38	0	40	54	45	44	37	54	139	135	84	91	99	274	45.2565	60	57	37	61	42	63
6	23	0	43	42	42	41	38	41	127	120	84	80	83	247	45.7968266	56	43	33	65	32	63
7	29	0	40	13	31	45	31	69	84	145	85	44	100	229	45.56528843	40	40	37	34	41	54
8	31	0	45	48	43	38	36	56	136	130	83	84	99	266	45.62202	40	13	31	45	31	69
9	39	0	37	44	38	39	48	57	119	144	76	92	95	263	45.876894	60	58	41	61	39	60
10	29	0	59	48	31	45	31	69	138	145	104	79	100	283	45.435645	62	54	41	66	41	66
11	33	0	40	13	45	33	54	41	98	128	73	67	86	226	45.5278	57	56	39	54	40	56
12	43	0	55	43	52	53	32	50	150	135	108	75	102	285	45.4356454	55	48	42	56	51	53
13	30	0	59	54	40	55	36	57	153	148	114	90	97	301	45.95854	59	48	44	54	38	64
14	46	0	40	40	37	34	41	54	117	129	74	81	91	246	45.58411957	36	45	37	38	44	54
15	23	0	38	29	43	32	30	38	110	100	70	59	81	210	46.0842199	59	60	42	61	43	59
16	28	0	40	13	45	33	54	41	98	128	73	67	86	226	45.527864	59	60	42	61	43	59
17	46	0	54	40	32	60	30	65	126	155	114	70	97	281	45.36319	59	57	41	63	33	63
18	37	0	57	47	32	42	28	62	136	132	99	75	94	268	45.58411	51	39	40	54	29	59
19	29	0	42	54	47	44	38	54	143	136	86	92	101	279	45.58412	55	52	45	49	37	58
20	32	0	41	43	36	38	48	54	120	140	79	91	90	260	45.7378	48	47	47	45	33	56
21	29	9	48	40	27	35	48	58	115	141	83	88	85	256	45.381197	62	53	41	52	29	62
22	21	3	50	35	42	35	51	57	127	137	85	86	93	264	45.239	62	53	41	52	29	62
23	36	3	37	28	30	22	50	41	95	113	59	78	71	208	45.81669987	40	39	47	37	40	51
24	39	4	48	40	27	35	48	58	115	141	83	88	85	256	45.38119785	41	43	36	38	48	54
25	47	4	48	43	27	35	46	58	118	139	83	89	85	257	45.417424	37	43	40	39	48	54
26	26	4	40	39	42	29	35	46	121	110	69	74	88	231	45.9379808	37	45	36	39	48	54
27	34	9	43	34	45	31	54	48	122	133	74	88	93	255	45.472307	51	35	43	51	48	58
28	48	1	41	39	44	34	36	48	124	118	75	75	92	242	45.5841195	59	54	40	55	36	57
29	29	7	19	38	18	35	55	11	75	101	54	93	29	176	45.54653693	41	43	36	38	48	54
30	41	13	36	40	39	32	48	44	115	124	68	88	83	239	45.9175171	41	43	36	38	48	54
31	37	5	39	39	42	34	36	54	120	124	73	75	96	244	45.5092688	42	54	47	44	38	54
32	46	4	44	36	42	31	37	53	122	121	75	73	95	243	45.565288	57	47	32	42	28	62
33	25	3	40	33	39	28	53	45	112	126	68	86	84	238	45.660261	59	57	41	63	33	63
34	24	8	8	31	10	15	26	10	49	51	23	57	20	100	45.56528843	55	43	52	53	32	50
35	51	2	42	34	39	29	39	47	115	115	71	73	86	230	45.56528843	59	48	31	45	31	69
36	39	2	47	41	12	34	46	50	100	130	81	87	62	230	45.2748437	40	54	45	44	37	54
37	43	5	36	40	39	32	48	44	115	124	68	88	83	239	45.91751	62	54	43	62	13	64
38	33	4	43	41	44	41	34	49	128	124	84	75	93	252	45.698837	50	49	39	57	45	54
39	27	3	48	43	42	35	50	49	113	134	83	93	91	267	45.4975	52	55	39	57	45	54
40	19	6	41	43	36	38	48	54	120	140	79	91	90	260	45.73776	59	54	40	55	36	57

S.NO.	AGE	SOCIAL SKILL INVENTORY (POST)							FEICS (PRE)		FEICS (POST)	
		TOTAL EMOTIONA	TOTAL SOCIAL	EXPRESSIVITY	SENSITIVITY	CONTROL	TOTAL SSI	EQUILLIBRIUM INDEX	EOI	PC	EOI	PC
1	36	138	136	95	79	100	274	45.546	24	18	12	7
2	46	97	102	50	82	67	199	46.084219	20	19	7	4
3	27	138	136	95	79	100	274	45.5465	22	18	5	13
4	49	145	160	111	99	95	305	45.8567	27	20	8	8
5	38	154	166	121	99	100	320	45.7377	18	13	6	12
6	23	132	160	121	75	96	292	45.453939	27	20	12	12
7	29	117	129	74	81	91	246	45.584119	17	16	7	11
8	31	84	145	85	44	100	229	45.58411957	19	16	7	12
9	39	159	160	121	97	101	319	45.7377627	21	20	7	7
10	29	157	173	128	95	107	330	45.622024	21	13	5	12
11	33	152	150	111	96	95	302	46.0629961	20	19	7	7
12	43	145	160	111	99	95	305	45.8567	26	17	8	11
13	30	151	156	113	86	108	307	45.565289	27	18	7	11
14	46	118	136	74	89	91	254	45.8567323	18	16	9	10
15	23	161	163	120	103	101	324	45.836668	22	16	4	12
16	28	161	163	120	103	101	324	45.2741843	23	21	6	10
17	46	157	159	122	90	104	316	45.47231	22	17	5	11
18	37	130	142	105	68	99	272	45.663031	21	20	5	12
19	29	152	144	104	89	103	296	45.565288	21	20	8	5
20	32	142	134	93	80	103	276	46.02089	23	11	6	9
21	29	156	143	114	82	103	299	45.77705	22	25	11	10
22	21	156	143	114	82	103	299	45.77764625	17	14	17	12
23	36	126	128	77	79	98	254	45.4539394	12	8	7	19
24	39	120	140	79	91	90	260	45.73776272	5	14	14	13
25	47	120	141	76	91	94	261	45.757359	19	17	15	13
26	26	118	141	76	93	90	259	45.8768943	25	10	21	11
27	34	129	157	102	83	101	286	45.83666	15	10	15	20
28	48	153	148	114	90	97	301	45.95855	7	20	16	10
29	29	120	140	79	91	90	260	45.737762	24	13	13	15
30	41	120	140	79	91	90	260	45.737763	22	7	17	13
31	37	143	136	86	92	101	279	45.5841195	14	12	12	11
32	46	136	132	99	75	94	268	45.58412	9	17	9	17
33	25	157	159	122	90	104	316	45.4723074	3	20	11	13
34	24	150	135	108	75	102	285	45.43564	17	21	7	14
35	51	138	145	104	79	100	283	45.435645	27	21	13	11
36	39	139	135	84	91	99	274	45.256583	23	23	6	10
37	43	159	139	124	67	107	298	45.679506	22	20	6	11
38	33	138	156	107	94	93	294	46.148593	22	20	7	7
39	27	146	156	109	100	93	302	46.21406	21	15	7	12
40	19	153	148	114	90	97	301	45.958548	25	17	5	12

Hamilton Depression Rating Scale (HDRS)

Reference: **Hamilton M. A rating scale for depression. J Neurol Neurosurg Psychiatry 1960; 23:56–62**

Rating Clinician-rated

Administration time 20–30 minutes

Main purpose To assess severity of, and change in, depressive symptoms

Population Adults

Commentary

The HDRS (also known as the Ham-D) is the most widely used clinician-administered depression assessment scale. The original version contains 17 items ($HDRS_{17}$) pertaining to symptoms of depression experienced over the past week. Although the scale was designed for completion after an unstructured clinical interview, there are now semi-structured interview guides available. The HDRS was originally developed for hospital inpatients, thus the emphasis on melancholic and physical symptoms of depression. A later 21-item version ($HDRS_{21}$) included 4 items intended to subtype the depression, but which are sometimes, incorrectly, used to rate severity. A limitation of the HDRS is that atypical symptoms of depression (e.g., hypersomnia, hyperphagia) are not assessed (see SIGH-SAD, page 55).

Scoring

Method for scoring varies by version. For the $HDRS_{17}$, a score of 0–7 is generally accepted to be within the normal range (or in clinical remission), while a score of 20 or higher (indicating at least moderate severity) is usually required for entry into a clinical trial.

Versions

The scale has been translated into a number of languages including French, German, Italian, Thai, and Turkish. As well, there is an Interactive Voice Response version (IVR), a Seasonal Affective Disorder version (SIGH-SAD, see page 55), and a Structured Interview Version (HDS-SIV). Numerous versions with varying lengths include the HDRS17, HDRS21, HDRS29, HDRS8, HDRS6, HDRS24, and HDRS7 (see page 30).

Additional references

Hamilton M. Development of a rating scale for primary depressive illness. Br J Soc Clin Psychol 1967; 6(4):278–96.

Williams JB. A structured interview guide for the Hamilton Depression Rating Scale. Arch Gen Psychiatry 1988; 45(8):742–7.

Address for correspondence

The HDRS is in the public domain.

Hamilton Depression Rating Scale (HDRS)

PLEASE COMPLETE THE SCALE BASED ON A STRUCTURED INTERVIEW

Instructions: for each item select the one "cue" which best characterizes the patient. Be sure to record the answers in the appropriate spaces (positions 0 through 4).

1 DEPRESSED MOOD *(sadness, hopeless, helpless, worthless)*

0 |__| Absent.
1 |__| These feeling states indicated only on questioning.
2 |__| These feeling states spontaneously reported verbally.
3 |__| Communicates feeling states non-verbally, i.e. through facial expression, posture, voice and tendency to weep.
4 |__| Patient reports virtually only these feeling states in his/her spontaneous verbal and non-verbal communication.

2 FEELINGS OF GUILT

0 |__| Absent.
1 |__| Self reproach, feels he/she has let people down.
2 |__| Ideas of guilt or rumination over past errors or sinful deeds.
3 |__| Present illness is a punishment. Delusions of guilt.
4 |__| Hears accusatory or denunciatory voices and/or experiences threatening visual hallucinations.

3 SUICIDE

0 |__| Absent.
1 |__| Feels life is not worth living.
2 |__| Wishes he/she were dead or any thoughts of possible death to self.
3 |__| Ideas or gestures of suicide.
4 |__| Attempts at suicide (any serious attempt rate 4).

4 INSOMNIA: EARLY IN THE NIGHT

0 |__| No difficulty falling asleep.
1 |__| Complains of occasional difficulty falling asleep, i.e. more than ½ hour.
2 |__| Complains of nightly difficulty falling asleep.

5 INSOMNIA: MIDDLE OF THE NIGHT

0 |__| No difficulty.
1 |__| Patient complains of being restless and disturbed during the night.
2 |__| Waking during the night – any getting out of bed rates 2 (except for purposes of voiding).

6 INSOMNIA: EARLY HOURS OF THE MORNING

0 |__| No difficulty.
1 |__| Waking in early hours of the morning but goes back to sleep.
2 |__| Unable to fall asleep again if he/she gets out of bed.

7 WORK AND ACTIVITIES

0 |__| No difficulty.
1 |__| Thoughts and feelings of incapacity, fatigue or weakness related to activities, work or hobbies.
2 |__| Loss of interest in activity, hobbies or work – either directly reported by the patient or indirect in listlessness, indecision and vacillation (feels he/she has to push self to work or activities).
3 |__| Decrease in actual time spent in activities or decrease in productivity. Rate 3 if the patient does not spend at least three hours a day in activities (job or hobbies) excluding routine chores.
4 |__| Stopped working because of present illness. Rate 4 if patient engages in no activities except routine chores, or if patient fails to perform routine chores unassisted.

8 RETARDATION (slowness of thought and speech, impaired ability to concentrate, decreased motor activity)

0 |__| Normal speech and thought.
1 |__| Slight retardation during the interview.
2 |__| Obvious retardation during the interview.
3 |__| Interview difficult.
4 |__| Complete stupor.

9 AGITATION

0 |__| None.
1 |__| Fidgetiness.
2 |__| Playing with hands, hair, etc.
3 |__| Moving about, can't sit still.
4 |__| Hand wringing, nail biting, hair-pulling, biting of lips.

10 ANXIETY PSYCHIC

0 |__| No difficulty.
1 |__| Subjective tension and irritability.
2 |__| Worrying about minor matters.
3 |__| Apprehensive attitude apparent in face or speech.
4 |__| Fears expressed without questioning.

11 ANXIETY SOMATIC (physiological concomitants of anxiety) such as:

gastro-intestinal – dry mouth, wind, indigestion, diarrhea, cramps, belching
cardio-vascular – palpitations, headaches
respiratory – hyperventilation, sighing
urinary frequency
sweating

0 |__| Absent.
1 |__| Mild.
2 |__| Moderate.
3 |__| Severe.
4 |__| Incapacitating.

12 SOMATIC SYMPTOMS GASTRO-INTESTINAL

0 |__| None.
1 |__| Loss of appetite but eating without staff encouragement. Heavy feelings in abdomen.
2 |__| Difficulty eating without staff urging. Requests or requires laxatives or medication for bowels or medication for gastro-intestinal symptoms.

13 GENERAL SOMATIC SYMPTOMS

0 |__| None.
1 |__| Heaviness in limbs, back or head. Backaches, headaches, muscle aches. Loss of energy and fatigability.
2 |__| Any clear-cut symptom rates 2.

14 GENITAL SYMPTOMS (symptoms such as loss of libido, menstrual disturbances)

0 |__| Absent.
1 |__| Mild.
2 |__| Severe.

15 HYPOCHONDRIASIS

0 |__| Not present.
1 |__| Self-absorption (bodily).
2 |__| Preoccupation with health.
3 |__| Frequent complaints, requests for help, etc.
4 |__| Hypochondriacal delusions.

16 LOSS OF WEIGHT ***(RATE EITHER a OR b)***

a) According to the patient:	**b) According to weekly measurements:**
0 |__| No weight loss.	0 |__| Less than 1 lb weight loss in week.
1 |__| Probable weight loss associated with present illness.	1 |__| Greater than 1 lb weight loss in week.
2 |__| Definite (according to patient) weight loss.	2 |__| Greater than 2 lb weight loss in week.
3 |__| Not assessed.	3 |__| Not assessed.

17 INSIGHT

0 |__| Acknowledges being depressed and ill.
1 |__| Acknowledges illness but attributes cause to bad food, climate, overwork, virus, need for rest, etc.
2 |__| Denies being ill at all.

Total score: |__|__|

This scale is in the public domain.

1 = ***Not at all like me***
2 = ***A little like me***
3 = ***Like me***
4 = ***Very much like me***
5 = ***Exactly like me***

Please ensure that you work from left to right on the answer sheet.

1. It is difficult for others to know when I am sad or depressed.
2. When people are speaking, I spend as much time watching their movements as I do listening to them.
3. People can always tell when I dislike them, no matter how hard I try to hide my feelings.
4. I enjoy giving parties.
5. Criticism or scolding rarely makes me feel uncomfortable.
6. I can be comfortable with all types of people -- young and old, rich and poor.
7. I talk faster than most people.
8. Few people are as sensitive and understanding as I am.
9. It is often hard for me to keep a "straight face" when telling a joke or humorous story.
10. It takes people quite a while to get to know me well.
11. My greatest source of pleasure and pain is other people.
12. When I'm with a group of friends, I am often the spokesperson for the group.
13. When depressed, I tend to make those around me depressed also.
14. At parties, I can immediately tell when someone is interested in me.
15. People can always tell when I am embarrassed by the expression on my face.
16. I love to socialize.
17. I would much rather take part in a political discussion that to observe and analyze what the participants are saying.
18. Sometimes I find it difficult to look at others when I am talking about something personal.
19. I have been told that I have expressive eyes.
20. I am interested in knowing what makes people tick.
21. I am not very skilled in controlling my emotions.
22. I prefer jobs that require working with a large number of people.
23. I am greatly influenced by the moods of those around me.
24. I am not good at making prepared speeches.
25. I usually feel uncomfortable touching other people.
26. I can easily tell what a person's character is by watching his or her interactions with others.
27. I am able to conceal my true feelings from just about anyone.
28. I always mingle at parties.
29. There are certain situations in which I find myself worrying about whether I am doing or saying the right things.
30. I find it very difficult to speak in front of a large group of people.

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1 = ***Not at all like me***
2 = ***A little like me***
3 = ***Like me***
4 = ***Very much like me***
5 = ***Exactly like me***

Please ensure that you are working from left to right on the answer sheet.

31. I often laugh out loud.
32. I always seem to know what peoples' true feelings are no matter how hard they try to conceal them.
33. I can keep a straight face even when friends try to make me laugh or smile.
34. I usually take the initiative to introduce myself to strangers.
35. Sometimes I think that I take things other people say to me too personally.
36. When in a group or people, I have trouble thinking of the right things to talk about.
37. Sometimes I have trouble making my friends and family realize just how angry or upset I am with them.
38. I can accurately tell what a person's character is upon first meeting him or her.
39. It is very hard for me to control my emotions.
40. I am usually the one to initiate conversations.
41. What others think about my actions is of little or no consequence to me.
42. I am usually very good at leading group discussions.
43. My facial expression is generally neutral.
44. One of my greatest pleasures in life is being with other people.
45. I am very good at maintaining a calm exterior even if I am upset.
46. When telling a story, I usually use a lot of gestures to help get the point across.
47. I often worry that people will misinterpret something I have said to them.
48. I am often uncomfortable around people whose social class is different from mine.
49. I rarely show my anger.
50. I can instantly spot a "phony" the minute I meet him or her.
51. I usually adapt my ideas and behavior to the group I happen to be with at the time.
52. When in discussions, I find myself doing a large share of the talking.
53. While growing up, my parents were always stressing the importance of good manners.
54. I am not very good at mixing at parties.
55. I often touch my friends when talking to them.
56. I dislike it when other people tell me their problems.
57. While I may be nervous on the inside, I can disguise it very well from others.
58. At parties I enjoy talking to a lot of different people.
59. I can be strongly affected by someone smiling or frowning at me.
60. I would feel out of place at a party attended by a lot of very important people.

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5 = ***Exactly like me***

Please ensure that you are working from left to right on the answer sheet.

61.	I am able to liven up a dull party.	76.	I am unlikely to speak to strangers until they speak to me.
62.	I sometimes cry at sad movies.	77.	I get nervous if I think someone is watching me.
63.	I can make myself look as if I'm having a good time at a social function even if I'm not really enjoying myself at all.	78.	I am often chosen to be the leader of a group.
64.	I consider myself a loner.	79.	Friends have sometimes told me that I talk too much.
65.	I am very sensitive of criticism	80.	I am often told that I am a sensitive, understanding person.
66.	Occasionally I've noticed that people from different backgrounds seem to feel uncomfortable around me.	81.	People can always "read" my feelings even when I'm trying to hide them.
67.	I dislike being the center of attention.	82.	I tend to be the "life of the party."
68.	I am easily able to give a comforting hug or touch someone who is distressed.	83.	I'm generally concerned about the impression I'm making on others.
69.	I am rarely able to hide a strong emotion.	84.	I often find myself in awkward social situations.
70.	I enjoy going to large parties and meeting new people.	85.	I never shout or scream when angry.
71.	It is very important that other people like me.	86.	When my friends are angry or upset, they seek me out to help calm them down.
72.	I sometimes say the wrong thing when starting a conversation with a stranger.	87.	I am easily able to make myself look happy one minute and sad the next.
73.	I rarely show my feelings or emotions.	88.	I could talk for hours on just about any subject.
74.	I can spend hours just watching other people.	89.	I am often concerned with what others are thinking of me.
75.	I can easily pretend to be mad even when I am really feeling happy.	90.	I can easily adjust to being in just about any social situation.

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Self-Description Inventory

Answer Sheet

1. Name: _____ 2. Gender: Male Female
(Last) (First) (Circle one)

3. Marital status: Single Married Widowed Divorced 4. Age: _____
(Circle one)

5. Education*: (Circle highest level)*

Elementary	Some High School
High School Grad	Some College
College Grad	Some Grad work
Graduate Degree	

Please use the following scale to respond to question 6:

1 = Very Satisfied
2 = Somewhat Satisfied
3 = Somewhat Dissatisfied
4 = Very Dissatisfied

6. How satisfied are you with: (Circle a response)

Your present marriage (or intimate relationship): 1 2 3 4

Relationships with family members (parents, siblings): 1 2 3 4

Friendships: 1 2 3 4

Kind of work you do: 1 2 3 4

The place where you work: 1 2 3 4

Future work opportunities:..... 1 2 3 4

Questions 3 through 6 are optional, and are used for research purposes only.

Please proceed to the next page

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Directions: Be sure to read all of the instructions on the test booklet before proceeding. Please read each statement in the test booklet carefully, and darken the number between 1 and 5 that best indicates how characteristic the description in the statement is of you.

1 = ***Not at all like me***
2 = ***A little like me***
3 = ***Like me***
4 = ***Very much like me***
5 = ***Exactly like me***

Note that, unlike the test booklet, the items on this answer sheet run from left to right.
Make sure to match the item number in the test booklet with the same item number on this answer sheet.

WORK ACROSS

	Not At All Like Me	A Little Like Me	Like Me	Very Much Like Me	Exactly Like Me		Not At All Like Me	A Little Like Me	Like Me	Very Much Like Me	Exactly Like Me		Not At All Like Me	A Little Like Me	Like Me	Very Much Like Me	Exactly Like Me		Not At All Like Me	A Little Like Me	Like Me	Very Much Like Me	Exactly Like Me		Not At All Like Me	A Little Like Me	Like Me	Very Much Like Me	Exactly Like Me	
1	①	②	③	④	⑤	2	①	②	③	④	⑤	3	①	②	③	④	⑤	4	①	②	③	④	⑤	5	①	②	③	④	⑤	6
7	①	②	③	④	⑤	8	①	②	③	④	⑤	9	①	②	③	④	⑤	10	①	②	③	④	⑤	11	①	②	③	④	⑤	12
13	①	②	③	④	⑤	14	①	②	③	④	⑤	15	①	②	③	④	⑤	16	①	②	③	④	⑤	17	①	②	③	④	⑤	18
19	①	②	③	④	⑤	20	①	②	③	④	⑤	21	①	②	③	④	⑤	22	①	②	③	④	⑤	23	①	②	③	④	⑤	24
25	①	②	③	④	⑤	26	①	②	③	④	⑤	27	①	②	③	④	⑤	28	①	②	③	④	⑤	29	①	②	③	④	⑤	30
31	①	②	③	④	⑤	32	①	②	③	④	⑤	33	①	②	③	④	⑤	34	①	②	③	④	⑤	35	①	②	③	④	⑤	36
37	①	②	③	④	⑤	38	①	②	③	④	⑤	39	①	②	③	④	⑤	40	①	②	③	④	⑤	41	①	②	③	④	⑤	42
43	①	②	③	④	⑤	44	①	②	③	④	⑤	45	①	②	③	④	⑤	46	①	②	③	④	⑤	47	①	②	③	④	⑤	48
49	①	②	③	④	⑤	50	①	②	③	④	⑤	51	①	②	③	④	⑤	52	①	②	③	④	⑤	53	①	②	③	④	⑤	54
55	①	②	③	④	⑤	56	①	②	③	④	⑤	57	①	②	③	④	⑤	58	①	②	③	④	⑤	59	①	②	③	④	⑤	60
61	①	②	③	④	⑤	62	①	②	③	④	⑤	63	①	②	③	④	⑤	64	①	②	③	④	⑤	65	①	②	③	④	⑤	66
67	①	②	③	④	⑤	68	①	②	③	④	⑤	69	①	②	③	④	⑤	70	①	②	③	④	⑤	71	①	②	③	④	⑤	72
73	①	②	③	④	⑤	74	①	②	③	④	⑤	75	①	②	③	④	⑤	76	①	②	③	④	⑤	77	①	②	③	④	⑤	78
79	①	②	③	④	⑤	80	①	②	③	④	⑤	81	①	②	③	④	⑤	82	①	②	③	④	⑤	83	①	②	③	④	⑤	84
85	①	②	③	④	⑤	86	①	②	③	④	⑤	87	①	②	③	④	⑤	88	①	②	③	④	⑤	89	①	②	③	④	⑤	90

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Young Mania Rating Scale (YMRS)

GUIDE FOR SCORING ITEMS:

The purpose of each item is to rate the severity of that abnormality in the patient. When several keys are given for a particular grade of severity, the presence of only one is required to qualify for that rating.

The keys provided are guides. One can ignore the keys if that is necessary to indicate severity, although this should be the exception rather than the rule.

Scoring between the points given (whole or half points) is possible and encouraged after experience with the scale is acquired. This is particularly useful when severity of a particular item in a patient does not follow the progression indicated by the keys.

1. **Elevated Mood**
   - 0 Absent
   - 1 Mildly or possibly increased on questioning
   - 2 Definite subjective elevation; optimistic, self-confident; cheerful; appropriate to content
   - 3 Elevated; inappropriate to content; humorous
   - 4 Euphoric; inappropriate laughter; singing

2. **Increased Motor Activity-Energy**
   - 0 Absent
   - 1 Subjectively increased
   - 2 Animated; gestures increased
   - 3 Excessive energy; hyperactive at times; restless (can be calmed)
   - 4 Motor excitement; continuous hyperactivity (cannot be calmed)

3. **Sexual Interest**
   - 0 Normal; not increased
   - 1 Mildly or possibly increased
   - 2 Definite subjective increase on questioning
   - 3 Spontaneous sexual content; elaborates on sexual matters; hypersexual by self-report
   - 4 Overt sexual acts (toward patients, staff, or interviewer)

4. **Sleep**
   - 0 Reports no decrease in sleep
   - 1 Sleeping less than normal amount by up to one hour
   - 2 Sleeping less than normal by more than one hour
   - 3 Reports decreased need for sleep
   - 4 Denies need for sleep

5. **Irritability**
   - 0 Absent
   - 2 Subjectively increased
   - 4 Irritable at times during interview; recent episodes of anger or annoyance on ward
   - 6 Frequently irritable during interview; short, curt throughout
   - 8 Hostile, uncooperative; interview impossible

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Young Mania Rating Scale (YMRS)

6. Speech (Rate and Amount)
- 0 No increase
- 2 Feels talkative
- 4 Increased rate or amount at times, verbose at times
- 6 Push; consistently increased rate and amount; difficult to interrupt
- 8 Pressured; uninterruptible, continuous speech

7. Language-Thought Disorder
- 0 Absent
- 1 Circumstantial; mild distractibility; quick thoughts
- 2 Distractible, loses goal of thought; changes topics frequently; racing thoughts
- 3 Flight of ideas; tangentiality; difficult to follow; rhyming, echolalia
- 4 Incoherent; communication impossible

8. Content
- 0 Normal
- 2 Questionable plans, new interests
- 4 Special project(s); hyper-religious
- 6 Grandiose or paranoid ideas; ideas of reference
- 8 Delusions; hallucinations

9. Disruptive-Aggressive Behavior
- 0 Absent, cooperative
- 2 Sarcastic; loud at times, guarded
- 4 Demanding; threats on ward
- 6 Threatens interviewer; shouting; interview difficult
- 8 Assaultive; destructive; interview impossible

10. Appearance
- 0 Appropriate dress and grooming
- 1 Minimally unkempt
- 2 Poorly groomed; moderately disheveled; overdressed
- 3 Disheveled; partly clothed; garish make-up
- 4 Completely unkempt; decorated; bizarre garb

11. Insight
- 0 Present; admits illness; agrees with need for treatment
- 1 Possibly ill
- 2 Admits behavior change, but denies illness
- 3 Admits possible change in behavior, but denies illness
- 4 Denies any behavior change

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FEICS I:

Case Number: __ __ __ __ __ __ __

Assess#/Date: __ __/__ __/__ __/__ __

Below are questions about you and your family now, whoever you consider to be in your family. Please answer them as they relate to your experience with your family when you were growing up.

(Please circle: 0:Almost Never, 1:Once in a while, 2:Some, 3:Often, 4:Almost always)

	Almost Never -- Almost Always	
1. I am upset if anyone else in my family was upset.	0 1 2 3 4	__
2. My family approves of most everything I did.	0 1 2 3 4	__
3. My family knows what I was feeling most of the time.	0 1 2 3 4	__
4. My family finds fault with my friends.	0 1 2 3 4	__
5. Family members give me money when I needed it.	0 1 2 3 4	__
6. My family complains about the way I handle money.	0 1 2 3 4	__
7. My family knows what I am thinking before I tell them.	0 1 2 3 4	__
8. My family approves of my friends.	0 1 2 3 4	__
9. I often know what my family members are thinking before they tell me.	0 1 2 3 4	__
10. My family complains about what I do for fun.	0 1 2 3 4	__
11. If I am upset, people in my family get upset too.	0 1 2 3 4	__
12. My family is always trying to get me to change.	0 1 2 3 4	__
13. If I have no way of getting somewhere my family will take me.	0 1 2 3 4	__
14. I have to be careful what I do or my family will put me down.	0 1 2 3 4	__

Even numbers are Perceived Criticism (PC)
2 & 8 need to be reversed before summing score
Odd numbers are Emotional Involvement (EI)

PC = sum (even numbered items)
EI = sum(odd numbered items)

Produces two scales ranging from 0 – 28.

EFFECT OF FAMILY- FOCUSED THERAPY AND SOCIAL COGNITION AND INTERACTION TRAINING ON PATIENTS WITH BIPOLAR AFFECTIVE DISORDER

DISSERTATION PROPOSAL

FOR APPROVAL OF SUBJECT OF DISSERTATION TO BE SUBMITTED

IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

M. PHIL

IN

CLINICAL PSYCHOLOGY

OF THE

BABA FARID UNIVERSITY OF HEALTH SCIENCES

FARIDKOT

MAY 2022

GORIKA ARORA

DEPARTMENT OF CLINICAL PSYCHOLOGY
DAYANAND MEDICAL COLLEGE AND HOSPITAL
LUDHIANA

ABSTRACT OF PLAN OF DISSERTATION

Title	EFFECT OF FAMILY- FOCUSED THERAPY AND SOCIAL COGNITION AND INTERACTION TRAINING ON PATIENTS WITH BIPOLAR AFFECTIVE DISORDER
For the degree of	M. Phil Clinical Psychology
Name of the candidate	Ms. Gorika Arora
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Co-supervisor	Dr. Bholeshwar Prasad Mishra, Professor & Head, Department of Clinical Psychology, DMCH, Ludhiana Dr. Navkiran Mahajan, Professor, Department of Psychiatry, DMCH, Ludhiana
Institution	Dayanand Medical College & Hospital, Ludhiana
University	Baba Farid University of Health Sciences, Faridkot

Introduction: Bipolar Affective Disorder is a debilitating mental health condition. The recurrent mood disturbance, residual symptoms between episodes, hospitalizations, disrupted cognitive and social functioning of the individual as well as impact the emotions of caregivers. The debilitating effects of bipolar disorder patients are likely to experience social skills deficits and expressed emotions by family members. The present study aims to study the effect of Social Cognition and Interaction Training on Social skills deficit and Effect of Family-Focused Therapy on Expressed Emotions of the caregivers of Bipolar Patients.

Aim of Study: 1) To study the effect of Social Cognition and Interaction Training (SCIT) on social skills deficit in Bipolar Patients (in mania and depressive phase) 2) To study the effect of Family Focused Therapy (FFT) on expressed emotions of caregivers of Bipolar Patients (currently in manic and depressive phase) 3) To evaluate relationship between Expressed Emotions and Social Skills Deficit in the Bipolar Affective Disorder across different phases.

Materials & Methods: The study will be conducted on Bipolar patients- 20 with Depressive Phase and 20 with Mania Phase presented in Psychiatry OPD & ward. Psychological evaluation will be done using Young's Mania Rating Scale (YMRS), Hamilton's Depression Rating Scale (HDRS), Social Skill Inventory and Family Emotional Involvement and Criticism Scale(FEICS). Seven sessions in total will be of The Social Cognition and Interaction Training(SCIT) and one session per day for 40-60 minutes each will be done. Six sessions of family focused therapy will be for 40 minutes each per day.

Clinical Significance: The findings will help in contributing to therapeutic intervention addressing social skills deficit in patients of Bipolar Affective Disorder and expressed emotions in the family members of the patients and how to overcome the problems.

Keywords: Bipolar Affective Disorder, Expressed Emotions, Social Skills Deficit, Mania and Depression, Mood Disorder.

(Signature)	(Signature)	(Signature)	(Signature)	(Signature)
Candidate	Co-supervisor	Co-supervisor	Supervisor	Principal

CERTIFICATE OF FACILITIES AVAILABLE

This is to certify that the facilities for work on the subject of dissertation titled **"EFFECT OF FAMILY- FOCUSED THERAPY AND SOCIAL COGNITION AND INTERACTION TRAINING ON PATIENTS WITH BIPOLAR AFFECTIVE DISORDER"** exist in the Department of Clinical Psychology, DMC&H, Ludhiana and will be provided to the candidate. We will see that the data being included in the dissertation is genuine and is collected by the candidate herself under our supervision and guidance.

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Date: 24/11/22

APPROVAL PROFORMA
BY RESEARCH & ETHICAL COMMITTEE
DAYANAND MEDICAL COLLEGE & HOSPITAL, LUDHIANA

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Department	Clinical Psychology
Topic of Dissertation	EFFECT OF FAMILY- FOCUSED THERAPY AND SOCIAL COGNITION AND INTERACTION TRAINING ON PATIENTS WITH BIPOLAR AFFECTIVE DISORDER
Likely date of appearing in PG examination	May-June 2023
Date of enrollment	01.03.2022
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Dr. Harpreet Kaur (Professor & Head, Pathology)	Mr. R K Sharma (Legal Expert)
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	Dr. Gagandeep Singh (Secretary, Ethics Committee Professor & Head, Neurology)

Approved: Yes / ~~No~~

Dr. Sandeep Puri
Chairperson
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Approved: Yes / ~~No~~

Prof. Arvind Malhotra
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Ethics Committee

BABA FARID UNIVERSITY OF HEALTH SCIENCES, FARIDKOT

PROFORMA FOR REGISTRATION OF SUBJECT FOR DISSERTATION

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2	NAME OF THE INSTITUTE	DAYANAND MEDICAL COLLEGE AND HOSPITAL, LUDHIANA
3	COURSE OF STUDY AND SUBJECT	M PHIL CLINICAL PSYCHOLOGY
4	DATE OF ADMISSION OF COURSE	01.03.2022
5	TITLE OF THE TOPIC	EFFECT OF FAMILY- FOCUSED THERAPY AND SOCIAL COGNITION AND INTERACTION TRAINING ON PATIENTS WITH BIPOLAR AFFECTIVE DISORDER

6. BRIEF RESUME OF THE INTENDED WORK

6.1 NEED FOR THE STUDY

Bipolar Affective Disorder(BAD) is characterized as chronic and unabating mental illness with recurrent mood episodes, with two different phases known as depression or mania. According to WHO (2000), Bipolar Affective Disorder has been considered to be one of the most widespread, debilitating and importunate mental illness which is seventh prominent cause of non-lethal burden in the world. According to Global Burden Study of Disease done in 2017, the lifetime prevalence of Bipolar Affective Disorder in India is 4.9-9.6%[1]. In a national representative sample, one in every four persons diagnosed with bipolar I disorder reported a suicide attempt [2].

The recurrent mood disturbances, chronic onset and lasting residual symptoms between episodes, multiple hospitalizations and disrupted cognitive processing interfere with the functioning of the individual. The functional impairment covers multiple domains, including functioning at work, interpersonal and social functioning. It was found that BAD Patients tend to have Social Rhythm Disruption which is marked by disturbed social functioning [3].

Recent research implies a major impairments in cognitive functioning in Bipolar disorder, with coexisting social cognitive deficits especially in mental state reasoning even during euthymic mood [4]. These functions deteriorate over the course of the disorder. Despite the rapid growth in scientific research on social-cognitive aspects of mood disorders over the past years, there is no significant research on psychosocial therapies for Bipolar Affective Disorder.

The National Institute of Mental Health (NIMH), in 2006, defined Social cognition as the mental operations that underlie social interactions, including perceiving, interpreting, and generating responses to the intentions, dispositions, and behaviours of others. Social cognition encompasses a broad range of domains, including social perception, emotion recognition, theory of mind, and attribution [5].

Recent evidence [6] suggests that part of the psychosocial impairment experienced by patients in Bipolar Affective Disorder is related to poor social skills. Even during pharmacological treatment patients with bipolar disorder can have social skills deficits [7]. Deficits in these abilities are typically associated with difficulties and conflicts in interpersonal relationships, lower quality of life, and decreased social expressivity. Sergin, 2000 [7] showed that, in addition to deficits in social functioning, imbalances in social skills are significant indicators of clinical distress in individuals with mood disorder leading to depressive symptoms vulnerability. The training of social skills is important considering their effect on the quality of life of the individuals with mood disorder [8].

Expressed Emotions (EE) levels in Bipolar patients' carers are reliable indicators of recurrence of the episode. George Brown Explained 5 components of Expressed emotions which include critical comments, hostility, emotional over involvement, warmth and positive remarks [9]. The quantification of critical comments and hostility is greatly reliant on the way in which the respondent uses their tone of voice to convey their feelings (anger, rejection, irritability, ignorance, blaming, negligence, etc), while the judgment of overinvolvement include reported behaviour such as caregivers blaming themselves, sacrificing things, being overprotective, excessively being concerned and neglecting personal needs of self (i.e., caregiver's). Role of caregivers can be very demanding and distressing especially when they have not received enough information, support and training in management for which family focused interventions are crucial [10].

Although research in social skills training and family expressed emotions in caregivers of patients with mood disorders has been ongoing since the past decade, there is still much to explore. Most of these researches are been conducted in western countries. Therefore, there is research gap in the studies on relationship between social skills and expressed emotions amongst eastern cultures. The

differences in family dynamics and social structure across cultures, may have a significant impact on the relationships and measures of expressed emotions and social skills deficits in bipolar disorder. As India has collectivistic culture the impact of expressed emotions and skills will be different to individualistic culture. There are some shared family systems that might contribute to high EE among family members of Bipolar Patients. Thus, this study aims on psychosocial interventions by working on social skills deficits in BAD patients and expressed emotions in the caregivers of the bipolar patients (depressive phase and manic phase) in India.

INTERVENTIONS USED IN THE STUDY:

Social Cognition and Interaction Training (SCIT) can be defined as a "psychological intervention based on Social psychology addressing two types of social cognitive dysfunctions as deficits referring to lack of skill or ability and biases refers to abnormality how a person uses his ability." (David L. Roberts et. al, 2003) [11]. SCIT was originally developed as an intervention for individuals who are at least 18 years of age, suffering from a psychotic illness, and who have interpersonal difficulties as a result of their illness.

SCIT targets to strike a balance between improving social cognitive accuracy and improving bipolar patient's understanding of social thinking as a tool to manage their social lives. It approach to helping patients generate alternatives to distorted social judgments has moved increasingly away from the goal of helping patients correct distortions and more toward the goal of appreciating how various judgments have different social and emotional consequences.

It includes training sessions focusing on emotional perception, distinguishing facts from guesses, generating alternatives, avoiding jumping to conclusions, which are designed to increase flexibility in attribution style and improve metacognition. It is theorized to improve through rehearsal based "bottom-up" learning and acquisition of social cognitive strategies that are deployed by patients in social situations.

As seen in studies social functioning is one of their most unmet treatment needs in bipolar patients, SCIT targets on it.

Family Focused Therapy (FFT)

Family-focused therapy (FFT) is an evidence-based intervention for adults and children with Bipolar Affective Disorder (BAD) and their caregivers, usually given in conjunction with pharmacotherapy after an illness episode developed in 1980's given by DAVID MIKLOWITZ (2008**)**. The treatment consists of conjoint sessions of psychoeducation regarding bipolar illness, communication enhancement training, and problem-solving skills training. It focuses on Expressed emotions of the caregivers as with frequent relapses and chronic course of illness, the emotional turmoil takes place in them.

The psychoeducation consists of didactically oriented sessions with patients and caregivers where they are explained the episodes of "mania" and "depression". They are encouraged to recollect the memories of recent episodes regarding the symptoms, stressors, timeline, first symptoms that began and how they worsened over time. The relapse prevention plan is made on the basis of this. Communication-enhancement training is likely to introduced early in session to improve relationship through interrupting negative patterns, increasing active listening and statements of empathy and rebalancing criticism and praise. The problem solving involves identifying specific family conflicts, generating solutions, evaluating advantages and disadvantages, choosing solutions that further helps in creating implementation plan for better management of bipolar patient.

6.2 REVIEW OF LITERATURE

Bipolar Affective disorder (BAD) is a common psychiatric illness. The severity and duration of episodes, signs and outcomes vary considerably in the individuals. The debilitating condition is associated with long-lasting and persistent impairment. Patients with Bipolar disorder tend to have deficits in the social skills and social interactions due to social cognition [6]. The role caregivers of the family members is very distressing and demanding thereby they express high levels of Expressed Emotions.

Patients with depression generally lack social reinforcement due to a lack of social skills, according to research, and social skills training has been demonstrated to be effective for depression [7]. The main aim in social skills training in depression is the improvement of assertive skill i.e., improving positive assertive (compliments, empathy, confirmation, asking for kindness); saying “no”; reaction to the critique; conflict resolution. The social skills training could be also powerful strategy in the treatment of bipolar disorders (Lam et al 2009) [12].

Social cognition, contributes to a person’s ability to comprehend and respond appropriately to the thoughts and feelings of others (MacQueen et. Al 2012)[13]. The study also found deficits in Theory of Mind in bipolar patients which was related to deterioration in social functioning. A study by Cusi et al.[14] focusing on social perception found that the BAD group performed significantly more poorly as compared to healthy controls, suggesting that individuals with BAD make impaired judgments about everyday social situations.

Patients with BAD because of associated affective disturbances may experience impairment in their social, occupational and social functioning. In a review conducted by Young et.al (2001) [15], 30-60% of patients with BAD were unable to return to full functioning. Social Cognition and Interaction Training was administered on Bipolar Patients that lead to better social functioning [11].

In a comparative study carried out by Kumar Swami et. al (2014) [16], on patients with BAD in a depressive phase of illness were compared to individuals with MDD, currently experiencing a major depressive episode. Variables such as occupation, household work, interpersonal social functioning, life satisfaction, leisure and global psychosocial functioning were considered. Although both groups experienced impairment, individuals with BAD were significantly more impaired in the domain of global psychosocial functioning.

Social skills include a set of behaviours related to interpersonal skills, interpersonal competence and communication competence. Goldstein et al.[17] showed that adolescents with bipolar affective disorder lag behind their peers in social performance but not in knowledge of social skills. The authors stated that difficulties in controlling emotions can interfere with the consistent exhibition of appropriate social behaviours. Perez et al[18] in their study using social skills inventory(SSI) showed that, in addition to deficits in social functioning, imbalances in social skills are significant indicators of clinical distress in individuals with mood disorder.

A pilot study that compared SCIT to traditional treatment for adults with High Functioning Autism showed participation was high (92%) and satisfaction reviews were mostly positive, supporting the feasibility [19]. As per preliminary study, SCIT participants improved in theory-of-mind abilities significantly, as well as their social communication skills improved.

According to Saleem et al. 1998 [20], High EE relatives were more verbally and non-verbally negative than low EE relative in their problem solving discussions after the episodes of Bipolar Affective Disorder that lead to sooner relapses. According to the study,[12] Higher usage of maladaptive coping, caregiver hardship, and abuse have a substantial impact on the EE as a result, caregivers must be the focus of psychosocial therapies to reduce EE. Bipolar patients whose families

were given Psychoeducational Intervention showed low levels of expressed emotions that led to fewer hospitalizations[21].

According to Malkowitz 2008,[22] Mood disorder symptoms and their related functional impairments are hypothesized to conjoint, interconnected influences of genetic, biological, and psychological vulnerabilities, family distress, and life stress at different points of development. Family-focused treatment (FFT) given in conjunction with pharmacotherapy appears to enhance the course of bipolar disorder in adults [23].

In two groups, carers of bipolar patients' expressed emotion (EE) levels are consistent predictors of relapse, as a predictor of symptomatic outcome: Bipolar patients who receive family-focused psychoeducational treatment (FFT) or integrated family and individual treatment (IFIT), as well as bipolar patients who receive crisis management, have fewer relapses and less severe symptoms [10] .

A study found that when patients with high EE family members received social skills training, medical treatment, and family psychoeducation, the relapse rate of Schizophrenic patients was reduced [24]. SCIT was beneficial in enhancing Hostility and Theory of Mind, while emotion mimicking training was employed to increase emotion perception [25].

According to preliminary study, Thirty first-episode major depression patients who received the SCIT plus usual care (i.e., SCIT + TAU group) were compared to twenty-nine patients who just received usual care (i.e., TAU group). When compared to the TAU group, patients who received SCIT demonstrated a significant improvement in emotion perception, theory of mind, and attributional styles from base point to follow-up evaluations, as well as a significant reduction in the severity of depression symptoms. SCIT appears to be a realistic and promising strategy for improving social cognition in people with significant depression [26].

Together, these findings suggest that impairment in social cognition and social skills may contribute to the alternations in functioning, particularly interpersonal and social functioning, which are experienced by people with BAD that need intervention. In addition, several cases reports have successful demonstrated Social Cognition and interaction Training on social skills deficits in Bipolar Patients and Family Focused Therapy on expressed emotions in Bipolar Patients.

6.3 AIMS AND OBJECTIVES OF THE STUDY

1. To study the effect of Social Cognition and Interaction Training (SCIT) on social skills deficit in Bipolar Patients (currently in manic phase)
2. To study the effect of Family Focused Therapy (FFT) on expressed emotions of caregivers of Bipolar Patients **(**currently in manic phase)
3. To study the effect of Social Cognition and Interaction Training (SCIT) on social skills deficit in Bipolar Patients (currently in depressive phase)
4. To study the effect of Family Focused Therapy (FFT) on expressed emotions of caregivers of Bipolar Patients **(**currently in depressive phase)
5. To evaluate relationship between Expressed Emotions and Social Skills Deficit in the Bipolar Affective Disorder across different phases.

7. MATERIALS AND METHODS

7.1 SOURCE OF DATA

Study will be conducted on 40 Bipolar Affective Disorder patients (20 with mania episode and 20 with depression episode), admitted in psychiatry ward and/or visiting psychiatry OPD at Dayanand Medical College and Hospital.

7.2 METHOD OF COLLECTION OF DATA

Design: pre and post intervention

Sample size: 40 bipolar patients (20 in manic phase and 20 with depressive phase)

Sample design: Purposive sampling design will be used. The patients who meet the inclusion criteria will be selected for the study.

INCLUSION CRITERIA (Mania phase)

- Diagnosis Of Bipolar Disorder according to ICD-10
- Age group between 18 to 55 years of either gender
- Scores on YMRS > 12
- Patients willing to give informed consent.

EXCLUSION CRITERIA (Mania phase)

- Any other psychiatric illness comorbidity
- History of intellectual disability
- Major neurological disorder/ communication disorder
- History of substance use disorder

INCLUSION CRITERIA (Depression phase)

- Diagnosis of Bipolar Disorder according to ICD 10
- Age group between 18 to 55 years of either gender
- Scores on HDRS >7
- Patients willing to give informed consent.

EXCLUSION CRITERIA (Depression phase)

- Any other psychiatric illness comorbidity

- ❖ History of intellectual disability
- ❖ Major neurological disorder/ communication disorder
- ❖ History of substance use disorder

DESCRIPTION OF THE TOOLS:

1. **Young Mania Rating Scale (YMRS)** [27](Young RC, Ziegler VE 1978): The YMRS is an 11- item, clinician-rated measure of current manic symptoms. The YMRS total score ranges from 0 to 60 where higher scores indicate more severe mania, thus, a negative change (or decrease) from baseline indicates a reduction (or improvement) in manic symptoms. Total score ≤12 indicates remission (13-19=minimal symptoms; 20-25=mild mania, 26-37=moderate mania, 38-60=severe mania).
2. **Hamilton Depression Rating Scale (HDRS)** [28] (Max Hamilton ,1960): The HDRS is the most widely used clinician-administered depression assessment scale. It yields a severity score from 0 to 63 on 17 items. Eight items are scored on a 5-point scale, ranging from 0 = not present to 4 = severe. Nine items are scored from 0–2. Scores of 0–7 are considered as being normal, 8–16 suggest mild depression, 17–23 moderate depression and scores over 24 are indicative of severe depression. Test- Retest reliability for the Hamilton depression scale ranged from 0.81 to 0.98.
3. **Social Skills Inventory (SSI)** [29] (Ronald Riggio, 2003): It is a 90-item scale which assesses 6 basic social skills that underlie social competence. It evaluates verbal (social) and non-verbal (emotional) communication skills and identifies strengths and weaknesses. Cronbach's alpha coefficients for the SSI scales range from .65 to .88 (M = .73) for the adult sample.
4. **Family emotional involvement and criticism scale (FEICS)** [30] (Shields, 1992): It is a 14-item scale which assesses two dimensions of EE: Emotional Over involvement (EOI) and perceived criticism (PC) in the family. On 14-item scale, the PC subscale should clearly indicate negative attitudes and EOI scale clearly reveal high levels of emotional involvement. The 14 items are

organized such that PC is assessed by even- numbered items and EOI is measured by odd-numbered items. A 5-point Likert-type scale includes response options of almost never, once in a while, some, often, almost always. On this scale, high scores indicate greater levels of PC and EOI.

METHODOLOGY

The study will be conducted on 40 patients between the age of 18 to 55 years, diagnosed with Bipolar Affective Disorder as per the criteria of ICD-10 (20 with mania phase and 20 depressive phase) admitted in psychiatry ward and or visiting De-addiction OPD at Dayanand Medical College, Ludhiana. Informed consent will be taken. Socio-demographic Proforma to be filled containing the basic information about the patient. The subjects will be evaluated on Hamilton Depression Rating Scale (HDRS), Young Mania Rating Scale (YMRS), Social Skills Inventory (SSI), Family emotional involvement and criticism scale (FEICS). They will be evaluated for social skills deficit using Social Skills Inventory prior to Social Cognition and Interaction Training. Family Emotional Involvement and criticism scale will be assessed for expressed emotions before intervention(FFT). The framework of therapy sessions will be as follow given in table. The baseline assessments will be done after the intervention. The suitable statistical package will be used for the data collection.

SOCIAL COGNITION AND INTERACTION TRAINING- DAVID L. ROBERTS (2003)	**FAMILY FOCUSED THERAPY – DAVID MIKLOWITZ (2008)**
SESSION1- BASELINE ASSESSMENTS	SESSION1- BASELINE ASSESSMENTS
SESSION 2- PSYCHOEDUCATION	SESSION2-PSYCHOEDUCATION
SESSION 3- ADDRESSING ATTRIBUTION STYLES	SESSION 3- COMMUNICATING ENHANCEMENT TRAINING
SESSION 4 – MODIFYING EMOTIONAL PERCEPTION	SESSION 4- ADDRESSING EXPRESSED EMOTIONS
SESSION5- IMPROVING INTERACTION PATTERNS	SESSION5- ENHANCING PROBLEM SOLVING SKILLS
SESSION 6- SOCIAL COGNITION TRAINING	SESSION 6- POST INTERVENTION ASSESSMENTS
SESSION7- POST INTERVENTION ASSESSMENTS	

OUTCOME

The present study would help us assess social skills and expressed emotions across the phases of Bipolar Affective Disorder. The study will also assist in evaluating relationship between Social Skills deficit and Expressed Emotions in the population mentioned above. It would aid in observing social skills deficit experienced by the patients diagnosed with Bipolar Affective Disorder and role of expressed emotions. It would also help us understanding the effect of Social Cognition and Interaction Training with patients diagnosed with Bipolar Affective Disorder and family focused therapy on family members of bipolar patients. The findings of the present study would add to enrich the existing fund of knowledge regarding this important domain. This will have direct and practical implications for effective therapeutic planning and rehabilitation programmes while treating patients with Bipolar Affective Disorder.

STATISTICAL ANALYSIS

Data will be described in terms of range; mean ±standard deviation (± SD), frequencies (number of cases) and relative frequencies (percentages) as appropriate. To determine whether the data is normally distributed, a Kolmogorov-Smirnov test will be used. Comparison of quantitative variables between the study groups will be done using Student t-test and Mann Whitney U test for independent samples for parametric and non-parametric data respectively. For comparing categorical data, Chi square ($\chi 2$) test will be performed and fisher exact test was used when the expected frequency is less than 5. A probability value (p value)less than 0.05 will be considered statistically significant. All statistical calculations will be done using (Statistical Package for the Social Science) SPSS 21version (SPSS Inc., Chicago, IL, USA) statistical program for Microsoft Windows.

7.3 DOES THE STUDY REQUIRE ANY INVESTIGATIONS OR INTERVENTIONS TO BE CONDUCTED ON PATIENTS OR OTHER HUMANS OR ANIMALS? IF SO, PLEASE DESCRIBE BRIEFLY.

Yes

7.4 HAS ETHICAL CLEARENCE BEEN OBTAINED FROM YOUR INSTITUTION IN CASE OF 7.3?

Yes, attached herewith

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SOCIO-DEMOGRAPHIC PROFORMA

S.NO: - **Date:**

1. NAME:

2. AGE:

3. SEX: - Male/ Female

4. MRD.NO: -

5. Education-

a) Illiterate b) Up to Matric
c) 10th d) 12th e) Graduate f) Postgraduate

6. Occupation-

a) Farmer/Clerical/Shopkeeper b) Semi-skilled/skilled worker
c) Unemployed d) Other
e) Professional f) Student

7. Address- a) Urban b) Rural

8. Contact no.-

9. Family Type- a) Nuclear b) Joint

10. Education

Professional degree
Graduate or postgraduate
Intermediate or post high school diploma
High school certificate
Middle school certificate
Primary school certificate
Illiterate

11. Occupation

Professional
Semi- professional
Clerical, shop owner/farm
Semi-skilled worker
Unskilled worker
Unemployed

12. Monthly income of the family

>52,734
26,335-52,733
19,759-26,354
13,161- 19,758
7,887-13,160
2,641-7,886
<2,640

13. Socio economic status

Upper Lower middle Lower
Upper middle Upper lower

Signature of Candidate **Signature of Supervisor**

14. Diagnosis:

15. Phase of the Disorder:

16. Pharmacological treatment history:

17. PSYCHOTHERAPEUTIC INTERVENTIONS:

	HDRS	YMRS	SOCIAL SKILLS INVENTORY						FAMILY INVOLVEMENT AND CRITICISM SCALE	
			EE	ES	EC	SE	SS	SC	EOI	PC
PRE-INTERVENTION SCORES										
SESSION 1										
SESSION 2										
SESSION 3										
SESSION 4										
SESSION 5										
SESSION 6										
SESSION 7										
POST INTERVENTION SCORES										

CONTACT NO.

Signature of Candidate **Signature of Supervisor**

INFORMED PATIENT CONSENT

Date: _____

I…….D/o, W/o, S/o……..……am willing to participate in the study "**EFFECT OF FAMILY- FOCUSED THERAPY AND SOCIAL COGNITION AND INTERACTION TRAINING ON PATIENTS WITH BIPOLAR AFFECTIVE DISORDER"** The procedure with its complications has been explained to me in local vernacular language. I have fully understood that no special tests and extra expenditure in any form, merely for the purpose of dissertation is being carried out. I am free to opt out the study any time without assigning any reason.

……. ……

Signature of the Witness Signature of the patient

Name:

Signature of Candidate **Signature of Supervisor**

<u>मंमरीज अनुमति फा</u>

तिथि_____

मैं_____ पत्नी/पुत्र/ पुत्री_____

निवासी_____

इस शोधकार्य "**EFFECT OF FAMILY- FOCUSED THERAPY AND SOCIAL COGNITION AND INTERACTION TRAINING ON PATIENTS WITH BIPOLAR AFFECTIVE DISORDER"** में भाग लेने के लिए सहमत हूँ। मैं इस शोधकार्य में भाग लेने के लिए अपनी स्वेच्छा से तैयार हूँ। मैं करतापुष्टि/करती हूँ की यह स्वीकृति देने के लिए मुझे कोई आर्थिक प्रलोभन श्य र्य का उद्देनहीं दिया गया और न ही दबाव डाला गया है। मुझे इस शोधका स है की यह विज्ञान और कर दिया गया है और मुझे यह विश्वास्पष्ट मानवता के लाभ के लिए है। मुझे इस शोधकार्य में होने वाले जोखिम के बारे में समझा दिया गया है और मेरी समझ में यह जोखिम बहुत मामुली है।

किसी भी समय अपनी मैं इस शोधकार्य में भाग लेने के सम्बन्ध में कर सकताअस्वीकृति व्यक्त/ करने का सकती हूँ और मेरे अस्वीकृति व्यक्त मेरे इलाज पर कोई प्रभाव नहीं पड़ेगा।

_____ _____

गवाह के हस्ताक्षर रोगी के हस्ताक्षर/ अंगूठे का निशान

नाम: नाम:

_____

अन्वेषक केहस्ताक्षर

_____

विद्यार्थी के हस्ताक्षर

ਮਰੀਜ਼ ਰਜ਼ਾਮੰਦੀ ਫਾਰਮ

ਮਿਤੀ_____

ਮੈ_____ਪਤਨੀ/ਪੁੱਤਰ/ਪੁੱਤਰੀ_____

ਵਾਸੀ_____ _____

"**EFFECT OF FAMILY- FOCUSED THERAPY AND SOCIAL COGNITION AND INTERACTION TRAINING ON PATIENTS WITH BIPOLAR AFFECTIVE DISORDER"** ਤੇ ਚਲ ਰਹੀ ਖੋਜ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਲਈ ਰਜ਼ਾਮੰਦ ਹਾਂ ।ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਲਈ ਮੈ ਆਪਣੀ ਮਰਜ਼ੀ ਨਾਲ ਤਿਆਰ ਹਾਂ ।ਮੈ ਇਹ ਦਸਣਾ ਚਾਹੁੰਦਾ ਹਾਂ/ ਚਾਹੁੰਦੀ ਹਾਂ ਕੇ ਇਹ ਰਜ਼ਾਮੰਦੀ ਦੇਣ ਵਾਸਤੇ ਮੈਨੂ ਕਿਸੇ ਵੀ ਤਰਾਂ ਦਾ ਲੋਭ-ਲਾਲਚ ਨਹੀ ਦਿੱਤਾ ਗਿਆ ਅਤੇ ਨਾ ਹੀ ਕੋਈ ਦਬਾ ਪਾਇਆ ਗਿਆ ਹੈ। ਮੈਨੂ ਇਸ ਖੋਜ ਦਾ ਮਨੋਰਥ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ ਅਤੇ ਮੈਨੂ ਇਹ ਭਰੋਸਾ ਦਵਾਇਆ ਗਿਆ ਹੈ ਕੇ ਇਹ ਖੋਜ ਵਿਗਿਆਨ ਅਤੇ ਮਾਨਵਤਾ ਦੀ ਭਲਾਈ ਲਈ ਹੈ ।ਮੈਨੂ ਇਸ ਖੋਜ ਵਿਚ ਹੋਣ ਵਾਲੇ ਖਤਰੇ ਬਾਰੇ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ ਅਤੇ ਮੈਨੂ ਇਹ ਯਕੀਨ ਹੈ ਕੇ ਇਹ ਖਤਰਾ ਬਹੁਤ ਮਾਮੂਲੀ ਹੈ ।ਮੈਨੂ ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਦਾ ਢੰਗ – ਤਰੀਕਾ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ।

ਮੈ ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਬਾਰੇ ਆਪਣੀ ਰਜ਼ਾਮੰਦੀ ਕਿਸੇ ਵੀ ਸਮੇ ਵਾਪਸ ਲੈ ਸਕਦਾ ਹਾਂ/ ਸਕਦੀ ਹਾਂ ਅਤੇ ਮੇਰੀ ਰਜ਼ਾਮੰਦੀ ਵਾਪਸ ਲੈਣ ਦਾ ਮੇਰੇ ਇਲਾਜ ਤੇ ਕੋਈ ਅਸਰ ਨਹੀ ਹੋਵੇਗਾ।

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ਗਵਾਹ ਦੇ ਹਸਤਾਖਰ ਮਰੀਜ਼ ਦੇ ਹਸਤਾਖਰ

ਮਿਤੀ_____ _____ਮਿਤੀ

ਪਤਾ _____ ਪਤਾ_____

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ਨਿਰੀਖਕ ਦੇ ਹਸਤਾਖਰ

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ਸਿਖਿਆਰਥੀ ਦੇ ਹਸਤਾਖਰ